

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

BAYOU METO BASIN PROJECT

(Bayou Meto, Little Bayou Meto, Wabbaseka Bayou,
and Bradley Slough)

MISSISSIPPI RIVER AND TRIBUTARIES



SOIL CONSERVATION SERVICE
Little Rock, Arkansas

W. S. S.
3
BAYOU METO BASIN PROJECT

(ARKANSAS)

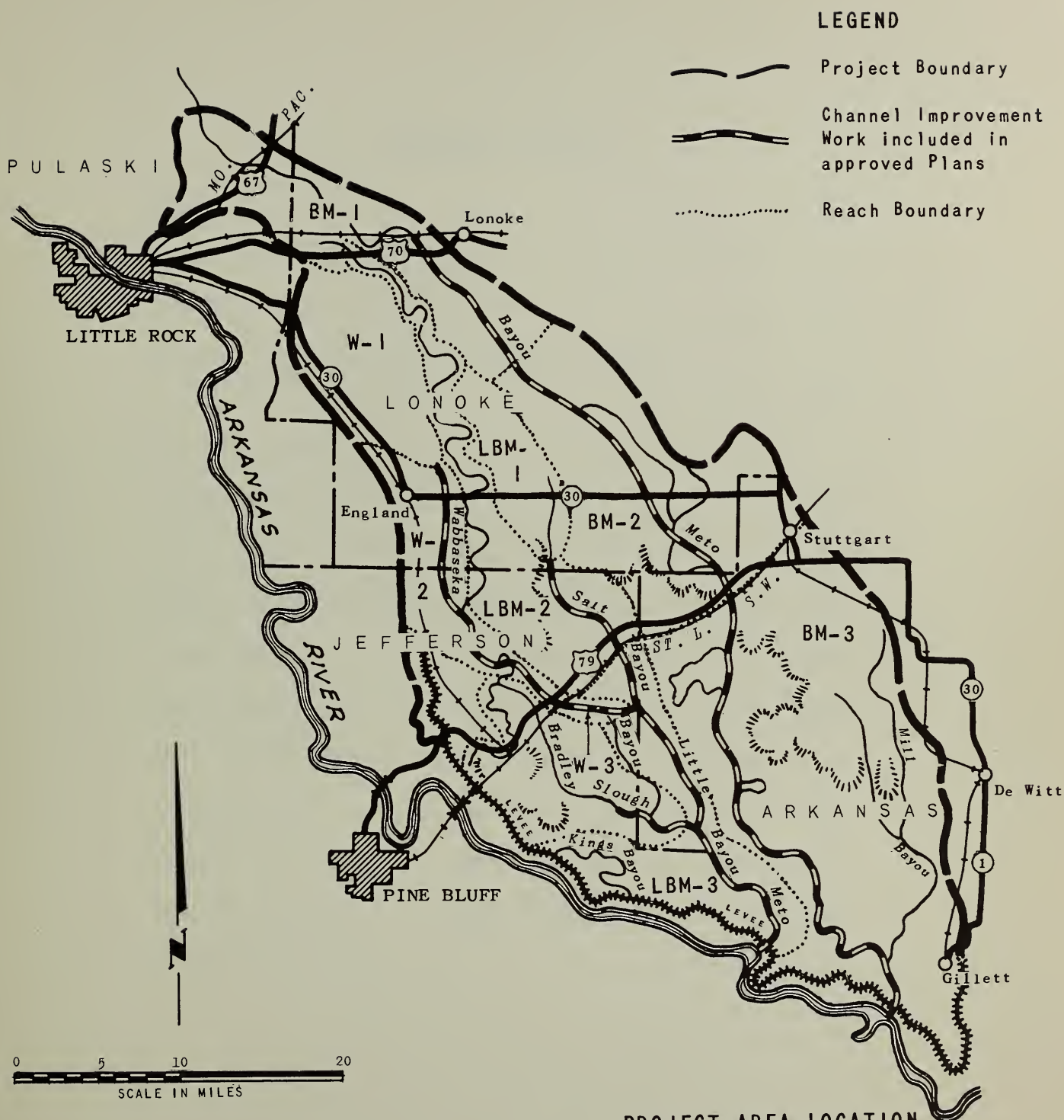
MISSISSIPPI RIVER AND TRIBUTARIES PROJECT REVIEW

A REPORT ON

PRESENT AND ANTICIPATED AGRICULTURAL CONDITIONS

Prepared by The
U. S. Department of Agriculture for the Mississippi River Commission

Soil Conservation Service
Little Rock, Arkansas
August, 1957
Revised November, 1957



**PROJECT AREA LOCATION
BAYOU METO BASIN**
Pulaski, Lonoke, Jefferson
and Arkansas Counties, Arkansas
**U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE**
LITTLE ROCK, ARKANSAS

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Narrative - - - - -	1
Basin Summary by Reaches - - - - -	16
Summary of Annual Net Production Returns and Associated Costs - - - - -	17
 <u>Bayou Meto Basin</u>	
Bayou Meto Main Stem Reach B-1 - - - - -	18
Bayou Meto Main Stem Reach B-2 - - - - -	33
Bayou Meto Main Stem Reach B-3 - - - - -	49
Caney Bayou Reach LBM-1 - - - - -	66
Salt Bayou Reach LBM-2 - - - - -	79
Little Bayou Meto Reach LBM-3 - - - - -	94
Indian Bayou Reach W-1- - - - -	109
Wabbaseka Bayou Reach W-2- - - - -	119
Wabbaseka Bayou Reach W-3- - - - -	132
Bradley Slough - - - - -	144

* * * * *

AUTHORITY

This report has been prepared by the Soil Conservation Service, U.S. Department of Agriculture, covering studies made under Section 6, Public Law 566, 83d Congress and upon request of the Mississippi River Commission. Specific request to initiate this particular project area study was made June 25, 1956, by the District Engineer, Vicksburg District, Corps of Engineers, Department of the Army. The basis for study was agreed on as set forth in the Project Study Statement, dated April 4, 1957

AGENCY PARTICIPATION AND RESPONSIBILITIES

Material contained herein is based upon the data at hand and the combined judgment of available agricultural technicians most familiar with the project area and its agricultural conditions and problems. Under a U.S. Department of Agriculture Memorandum of Understanding, consummated February 2, 1956, the U.S. Forest Service, the Agricultural Research Service, and the Soil Conservation Service have each participated in the study. From time to time assistance of other persons, such as representatives of the Agricultural Extension Service, State College of Agriculture and Experiment Station, and other agencies, has been given.

The Agricultural Research Service has been responsible for developing field crop and livestock commodity price data, field crop and livestock enterprise production cost data, interest rates for capitalization, amortization and discounting, and has assisted the Soil Conservation Service in studies of field crop and pasture yields and in overall economic procedures.

All woodland yields, values and costs were developed by the Forest Service.

The Soil Conservation Service, through the office of the Arkansas State Conservationist, has in general been responsible for coordinating and conducting the study and preparing this report. It has classified the soils of the area in accordance with the major soil groupings. It has estimated land use and cropping patterns, extent and cost of land use conversions, and extent and cost of farm and group drainage systems.

METHOD OF COMPUTING AGRICULTURAL VALUES CREDITABLE TO PROJECT

Data presented in this report are intended to portray three different situations with respect to land use, cropping patterns, crop yields, etc. - (1) the current situation, (2) the future

situation without the proposed project, and (3) future conditions with the proposed project. The basis for computing agricultural benefits in this report is the difference between the second and third situation listed. The major reason for this type of calculation is that it provides a systematic means of excluding non-project influences which are expected whether a project is installed or not. Because of current land development operations and expected changes in commodity price and price-cost relationships, for example, future land use and cropping systems without the project may be quite different than present. This difference is not credited to the project.

LIMITS OF APPLICATION OF ESTIMATES

The estimates cover an appraisal of the agricultural values and costs that can be expected as a result of agricultural drainage in association with installation of the proposed project works. However, the data includes no estimates of flood damage reduction, its values or costs, though the land use and cropping estimates reflect the flood protection that would be afforded by the proposed project works. Average flood-free yield estimates have been used throughout the study so that they can be used as a basis for calculation of flood damage reduction by the Corps of Engineers, based upon its own hydrologic studies. The Department of Agriculture, having made no hydrologic studies of its own in the area, has developed estimates on the basis of hydrologic data provided by the Corps of Engineers, including the delineation of limits of project effectiveness and maximum overflow that established the conditions for project study. Further studies may result in revised hydrologic data that would require modification of the agricultural data contained herein.

The limits of project effectiveness established by the Corps of Engineers on the basis of engineering studies were accepted as the basis for compilation of agricultural data. All soils of such characteristics as to not require drainage have been eliminated from drainage evaluations. However, no attempt has been made by the Department of Agriculture to designate areas, within the limit of project effectiveness provided by the Corps, which, because of elevation might be drained without the project and hence not properly credited as benefiting from the project. Further engineering studies by the Corps may reveal the desirability of eliminating some acreages of that type from the computations contained herein. The Department of Agriculture does not have responsibility for that phase of the study.

It was assumed that the proposed Bayou Meto project would provide complete and adequate outlet facilities for both surface and subsurface drainage of the areas to be served by the farm and group systems projected herein. If construction of the Arkansas River navigation project interferes with this assumed condition, or if for some other reason the assumption becomes invalid, then the results of the data contained herein would have to be reanalyzed accordingly.

DESCRIPTION OF THE PROJECT

The project includes the improvement of the main stem alluvial valley stream Bayou Meto and its tributaries, Little Bayou Meto, Salt Bayou, Wabbaseka Bayou and Bradley Slough; and Caney and Indian Bayous, which are extensions to Salt and Wabbaseka Bayous, respectively. The study includes a review of the existing project authorized by the Flood Control Act of May 17, 1950, substantially as stated in House Document No. 255, 81st Congress, first session. The proposed extensions were requested in a public hearing conducted in connection with the project review.

The area studied is bounded roughly by highway 67 between Jacksonville and Little Rock on the west, continuing southeast along the north bank Arkansas River levee and the Plum Bayou drainage divide; on the south by the north bank Arkansas River Levee; on the east and north by the higher Grand Prairie Region and the Two Prairie Bayou drainage divide.

The principal drainage arteries are divided into reaches to facilitate the economic study of the area in relation to key stream gages and topography. A description of the various reaches under consideration follows:

Bayou Meto, Reach B-3. About 40.5 miles of channel realignment, enlargement and cutoffs are planned in this reach between improved miles 0.0 and 40.5, upstream from the existing floodgate in the north bank Arkansas River levee to the St. Louis and Southwestern Railroad.

Bayou Meto, Reach B-2. About 19.7 miles of channel realignment, enlargement, and cutoffs are planned in this reach between improved miles 40.5 and 60.2 upstream from the St. Louis and Southwestern Railroad.

Bayou Meto, Reach B-1. About 19.5 miles of channel enlargement is planned in this reach between improved miles 60.2 and 80.0.

Little Bayou Meto, Reach LBM-3. About 27.7 miles of channel realignment and enlargement is planned in this reach between miles 0.7 and 27.7 (south of the St. Louis and Southwestern Railroad).

Salt Bayou, Reach LBM-2. This reach is a portion of the Little Bayou Meto drainage artery, 9.5 miles in length, extending from mile 27.7 to mile 37.2 in which channel realignment and enlargement are planned.

Caney Bayou, Reach LBM-1. About 9.0 miles of channel enlargement is considered in this reach between mile 37.2 and mile 46.2. This stream is an extension of the authorized improvement on Salt Bayou.

Wabbaseka Bayou, Reach W-3. About 6.0 miles of channel realignment and enlargement and 1.7 miles of channel diversion are planned in this reach between miles 0.0 and 7.9.

Wabbaseka Bayou, Reach W-2. About 24 miles of channel realignment and enlargement is planned in this reach between miles 7.9 and 31.9.

Indian Bayou, Reach W-1. This proposed work is an extension to the authorized work on Wabbaseka Bayou and consists of 11.9 miles of channel enlargement between miles 31.9 and 42.8.

Bradley Slough. About 5.08 miles of channel realignment and enlargement is planned between miles 0.00 and 5.08.

The authorized project with its proposed extensions is designed to alleviate the flood hazard now existing, and to serve as major outlets for farm and group drainage systems for a total of 672,262 acres, all in Arkansas. As established by the Corps of Engineers, an area of 393,872 acres (zone A) lies above limits of overflow. An area of 214,962 acres (zone B) is effected by flooding that can be alleviated by project works to an extent that will improve agriculture. An area of 63,428 acres (zone C) is subject to flooding by local water of such frequency as to preclude further agricultural development except as minor woodland conversions along the higher elevations, adjacent to zone B.

This project is essentially agricultural in nature. Agricultural benefits that could accrue from the project would be almost entirely from improvement in farm and group drainage systems and associated technology. Without these associated drainage facilities, comparatively minor agricultural benefits could accrue. The authorized project with its proposed extensions is an integral part of farm and group drainage systems.

Some farm and group drainage work has been and can be done by using the large C zone, mostly dedicated to recreation as a public duck-shooting ground, as a sump for dumping accumulated excess surface waters from portions of the A and B zones. However, this solution has limited application because of the inadequacy of the C zone to accept these accumulations during the growing season, when adequate drainage facilities are of most importance, without excessive damages to woodland and wildlife values as well as to cropping in the zone.

The project area is made up of Arkansas River bottomlands and loess terrace, commonly known in the area as the Grand Prairie. General farming predominates; cotton, rice, soybeans, small grain and livestock feed crop production are the major enterprises. Although individual operating units throughout the basin are highly developed, the area as a whole has achieved only moderate development; it is estimated that small operating units (less than 280 acres) will be consolidated to a considerable degree, and that in the future 90 percent of the farmlands in the area will be in large units of more than 280 acres in size. The flat topography, predominance of poorly drained soils, the considerable area subject to floods of varying frequencies, and the present inadequacy of the major drainage outlets are all factors contributing to the present situation in the area.

SOILS

Bottomland soils (soil mapping units 1, 2, 2SU, 4, 4SU, 6, 8, 11, 11SU and 12) are of major importance in the project area, comprising about 70 percent of the total land area. Soil mapping units 9, 9S, 10, 10S of the loess terrace, locally known as Grand Prairie, constitute the remaining 30 percent of the area, and occur, in the most part, above the zone of overflow. The soil complexity of the area in age, origin, elevation and physical characteristics brings about considerable variation throughout the basin in adaptability and response to cropping systems and management.

Approximately 31 percent of the project area is composed of very slowly permeable, poorly drained clay soils of the bottomlands (soil mapping unit 1). These soils are the most under developed for agricultural production of the bottomlands in the project area. Because of the flat to depressed topography, during periods of excessive rainfall - usually several times each cropping season - surface flooding and water logging conditions prevail unless intensive farm and group drainage systems are provided. In the flood-free state these soils are inherently productive and yield high production increments from drainage improvements.

About 5 percent of the area is composed of slowly permeable, poorly to moderately well drained clay soils of the bottomlands (soil mapping units 2 and 2SU). These soils are usually moderately well developed for agricultural production, depending upon location and character of adjacent soil units; they constitute high production increments for drainage improvement. Intensive farm and group drainage systems are required to prevent surface flooding during periods of excessive rainfall, which normally occur several times each cropping season.

poorly drained silt loams of the bottomlands (soil mapping units 6 and 8) constitute about 5 percent of the project area. These soils are presently poorly developed for agricultural production except for minor areas where farm drainage systems have been installed; they have a high production potential when properly drained. Because of their occurrence in low-lying areas, surface flooding and waterlogging are serious problems during periods of excessive rainfall - usually several times each cropping season.

Sandy loams of the bottomlands (soil mapping units 4 and 4SU) predominate on about 21 percent of the area. They are underlain at varying depths with clays and heavy silt loams, and are moderately well drained. They are moderately well developed agriculturally and are producing fairly high yields of all crops. These are inherently the best soils of the bottomlands; with intensive farm drainage and normal management they are capable of the highest production levels of the area. These mapping units are normally confined to intermediate elevations in the bottomland landscape, and can be identified as the lower elevations of the stream terraces.

Approximately 8 percent of the project area is composed of well drained bottomland soils (identified as soil mapping units 11, 11SU, and 12). Normally these require no drainage improvements, due to permeable structure and slightly higher elevation than surrounding wet soils. These low terrace soils, normally occupying the higher elevations in the bottomlands, are presently well developed agriculturally and highly productive.

About 19 percent of the project area is made up of silt loam soils (soil mapping units 9 and 10) of the loess terrace. These soils are, in the most part, above the zone of overflow and are moderately well developed agriculturally. The surface soils are of aeolian origin, underlain at varying depths, from 10 to 30 inches, by clays and heavy silt loams of alluvial origin, and are particularly adapted to rice culture. They are poorly to moderately well drained, are fairly highly developed agriculturally and yield are moderately high. They respond well to drainage improvements, particularly when drainage is coupled

with good management.

The remaining 11 percent of the area is composed of sloping soils of the loess terrace (soil mapping units 9S and 10S). These are well drained soils, normally requiring no drainage improvement. Yields are comparatively low, but fairly high yield increments can be added by application of available technology under intensive management.

LAND USE

About 64 percent of the project area is open land, 29 percent woodland, 6 percent (mostly woodland) in the Bayou Meto Public Shooting Ground, about 1 percent is watered area, and a negligible area in urban developments. Privately owned woodlands are mostly on the wet soil units, and are concentrated in the zones of overflow. The urban area is nearly all in the A zone, above the zone of overflow. The watered area is about equally divided among the three zones, and the Public Shooting Grounds are mostly in the zones of overflow, being concentrated in the C zone where no project benefits are anticipated.

There is a present trend toward conversion of some woodlands to crop and pasture use on all soil units, being concentrated in the A and B zones (above the limits of 3-year frequency floods). However, present trends are influenced by current prices of agricultural commodities and upon the usual optimism following a period of several relatively dry years when drainage needs have been minor. Without drainage improvements, relatively minor land use changes can be anticipated on wet soils, particularly in zone B. With drainage, however, large scale conversions can be expected.

Roughly one-third of the total area is woodland. Use varies considerably according to ownership, location, accessibility, soil and general drainage and overflow conditions. There are 21,498 privately owned acres representing 9.6 percent of the total woodland, which are reserved for wildlife use or forest production. In addition there is a large acreage of publicly owned woodland in a Wildlife Reserve, owned and managed by the Arkansas Game and Fish Commission, which has been excluded from the project study.

Exclusive of the dedicated land which could be identified and mapped, an additional 25 percent of the woodland is presently used and managed for duck hunting purposes. An undetermined area of woodland will probably be retained in this use, with a partial level of woodland management applied.

Woodland clearing in the last few years has not been as extensive as just after World War II. Some clearing for rice and fish production is taking place, especially in Reaches 1 and 2 of Bayou Meto and Little Bayou Meto. Some grazing damage to seedling and sapling stands was noted; less than one-fourth of the woodland has burned over in the last five years.

CROPPING PATTERNS

Cropping patterns on open land vary chiefly with the soil mapping unit, location of soils in terms of overflow hazard, and with drainage improvement of wet land soils. Much of the cropping in zone B is along the upper limits of overflow where frequency, depth and duration are not great enough to seriously effect cropping.

Cotton, rice, soybeans, corn, small grain, grain sorghum and pasture represent the major open land crops upon which this project analysis is based. Without drainage improvement, only small changes in major cropping are anticipated, other than an adjustment in "control crop" acreages to account for removal of acreage controls. However, with drainage improvement, relatively large conversions of woodlands are expected to occur, and more intensive cropping is anticipated with an increased acreage of cotton on most soils, and other crops on soils to which they are particularly adapted, as in the case of rice on soil units 1, 9 and 10. Rice acreage increases in the Grand Prairie area are limited, however, by a growing shortage of ground water for irrigation.

Since the data for zone B include some undrained as well as drained acreages, the cropping shown on Tables IIB, IIIB and IVB represents the weighted estimates for drained and undrained conditions.

YIELDS

Field crop and pasture yields are estimates of yields that are currently being attained or that can be expected to be attained by average producers, using a reasonable level of management, under future conditions, with and without drainage. All yields, in all project zones, are for average flood-free years. Within Zone B, under present, future without project, and future with project conditions, there are varying percentages of total acreage that are or would be drained. These percentages were used in computing weighted yields for Table IIB, IIIB, and IVB for each crop.

Computations for Zone A are only for net acreages to be drained, and since none of the acreage in Zone C will be

drained, weighting was unnecessary in these two zones.

Woodland yields are based upon sampling studies conducted in the area by the U. S. Forest Service. Woodland yields are based on average growth rates applicable to the species and stand size and ages found in the area. The yields represent the units of wood products and value that will be attained on the average for the next 50 years under the level of management that can be expected to prevail based on present findings in the project area. Board foot and cubic foot units of production of wood products per acre are not shown in Tables II and III due to complexity of computations. For simplicity, the yield for Table III has been consolidated into a per acre value of production discounted to present worth. Unit yields of wood products used in the consolidation are available in the working papers.

PRICES

Woodland production values, as used in Table III, are based on 1955 prices for woodland products F.O.B. mill or siding. 1955 prices are used since they appear to be realistic price projections for future conditions. The production values shown for the future without project conditions have been discounted to present worth in connection with increments in production and value due to application of high level management practices and any time lags in availability of products for harvest.

Projected field crop and livestock prices used in this report were developed jointly by the Agricultural Research Service and the Agricultural Marketing Service. Projected prices have been used, based on most likely long range expectations, and estimates of cropping patterns have been influenced by the assumption that such prices will prevail. Projected prices were developed from studies of the prospective conditions of product supplies and requirements. In order to remove the effects of price support programs and in order to reflect the economy of production in competing areas, the projections assume the eventual attainment of a relatively free market for agricultural products.

In evaluating the long-run aspects of deferred land development and improvement projects, the use of projected prices make it unnecessary to restrict the acreage of "control" crops in crop income computations.

Crop acreages shown for future conditions are not compatible with a projection of current prices into the future, however. Neither do they seem to portray attainable goals for restricted crops during the surplus disposal period in the immediate years

ahead. Therefore, if current prices were to be used in projection of future project conditions, or for projects where early construction is contemplated, there would appear to be little or no justification for increasing the acreage of surplus or "control" crops (cotton and rice) over current allotment acreages.

CROP PRODUCTION COSTS

Production costs for forest products are based on costs prevailing in and adjacent to the project locality during 1955. Those costs are estimated to be at a reasonable level for projection to future conditions. Production costs have been discounted to present worth in the same manner as production values. Costs cover conversion of standing timber to raw wood products at mill or rail siding, including a return to management, and a cultural and crop management cost consisting of an amortized annual charge for timber stand improvement work; an allowance for management and supervision by owners, their representatives, and foresters, and forest protection.

Production costs for all field crop and livestock enterprises were developed from a study of large and small Mississippi River bottomland farms. Because production costs by enterprises are not the same for large as for small farms, these costs were weighted in accordance with the proportionate acreage of land in large and small farms expected to exist in the project area under future conditions. Production costs, as used for project evaluation purposes, include all operational costs required to attain yield levels indicated in project cost tables (such as allowances for all labor, power, machinery, and materials required to produce and market the product), all farm overhead costs necessary in farm operation (except a charge for land), and an allowance for management expense which includes an estimated amount required for the operator's management and for any employed management personnel or services.

Land charges were omitted from the cost analysis because net returns to land were being determined for conditions with and without the project features. Overhead costs include such items as a charge for buildings, maintenance and replacement of farm machinery, interest on investment, insurance, and personal property taxes. Specified production costs are all costs incurred in production and marketing of the crop or livestock. These specified costs do not include overhead and management charges.

Overhead and management costs were allocated to each enterprise in proportion to the specified costs of production ex-

pended on the enterprise. Some production costs were treated as variables with yield levels attained (most harvest costs, fertilizer, poisoning, etc.) while other costs were assumed to be fixed regardless of yield (soil preparation, cultivation, and a portion of machine-picking cost). Preharvest, harvest, overhead and management costs were computed separately to derive total crop production costs.

Production costs used for projections are approximately 96 percent of the 1955 level of costs incurred by farmers.

Crop yield - production cost relationships are not the same for summary tables (all soils) as for the individual soils tables from which the summary tables are constructed. A small portion of this difference is statistical in nature (statistical error due to rounding to commonly used units) and can be ignored. The major difference, however, is due to the computing of both yields and production costs in the summary tables where total production and total cost of each crop for all soils is divided by the total acreage of that crop. If all costs bore a direct (straight-line) relationship to yield, these differences, except for statistical error, would not occur. Because this situation does not exist, an entirely accurate production cost for a given yield in the summary tables cannot be read from the standard cost tables that were developed. To get entirely accurate detailed costs (preharvest, harvest, overhead and management) in the summary tables that would be comparable to the costs used in the individual soil unit tables, it would be necessary to weight each of the components of total cost with the same acreage used in the individual soil unit tables.

The difference between the computed costs used in the summary tables for a given yield and the unweighted costs (standard cost tables) is not expected to exceed 10 percent on any given component of total cost - spot checks of actual data have not exceeded five percent. Therefore, unless greater accuracy is desired than that provided by summary tables, it will not be necessary to weight detailed cost data for flood damage analysis purposes if standard detailed cost tables are used in determining such costs.

In those cases where supplemental irrigation is involved (on crops other than rice which is an irrigated crop), irrigation costs are computed separately and added to standard production costs. These irrigation costs consist of pre-harvest and overhead charges. They have been added to standard nonirrigated production costs in proportion to acres irrigated in all tables where supplemental irrigation is involved.

NET CROP PRODUCTION RETURNS

The analysis of crop production by soil units, upon which the summary tables are based, generally indicate the gross value of production to be greater than production costs. For the future conditions without the project, however, production costs of some crops on some of the soil units are higher than gross value of the crop. A correction has been made in the summary tables to remove the effect of these negative net returns where they occur. In making the correction, the actual returns for the negative net returns was assumed to be zero. In the long-run, shifts in land use may be expected that would largely avoid the losses incurred with the cropping system shown. By indicating a net income of zero for crops having a negative net return, the net error involved is negligible, and well within the limits of error in basic information used in project area analysis. Higher yields, as expected, show larger net returns to land than lower yields for the same enterprise.

The basic principle involved in this analysis is that project justification should not be dependent upon negative values and, therefore, that the total net returns shown for future project conditions places a ceiling on project benefits. Inasmuch as this analysis assumes flood-free years, consideration has not been given to the effect of flood damage on average annual net income. Consideration of the relation of this production and income analysis to flood damage analysis can be given only after flood losses have been estimated.

LAND USE CONVERSIONS AND COSTS

Table VI shows the land use conversions that are anticipated from the influence of the Bayou Meto Basin Project and development of the associated farm and group drainage systems. Table VI also contains the costs of making all conversions (present level). Rather large conversions of woodland to general cultivated crops (dry land), irrigated crop (rice) and pasture use can be expected with provision of a major drainage outlet and associated farm and group drainage systems. It is estimated that these conversions will all be profitable enough to be desirable from the standpoint of the owner and operator. If the operator secures the inducement of a reasonable income over and above his loss of present woodland value and his land use conversion and drainage costs, he will probably go ahead with land conversions rather than wait for a long period of years for deferred woodland income.

Items of conversion cost include all expense of putting woodland from its present state into condition to produce a crop or live-

stock enterprise, with only normal production costs remaining to be incurred. This statement excepts considerable acreages of irrigation which will also be expected with drainage installation. Costs of installation and maintenance of irrigation systems are included in costs of production. Also included in costs of production are costs of establishing and maintaining pasture on converted woodlands or present open land.

All capital costs of woodland conversions have been amortized at 5 percent for a period of 50 years.

FARM DRAINAGE SYSTEMS AND COSTS

Table VII contains estimates of amounts and costs of farm drainage systems that can be expected after a satisfactory major outlet and connecting group drainage system is developed. These estimates anticipate that approximately 65 percent of the privately owned wet land will be drained and used for crop production. Approximately 10 percent of the open land is used for farmsteads, farm roads, waste, etc. and hence is not available for crop use. An additional area, estimated at 25 percent of the total privately owned wet land, will not be improved because of a lack of farmer participation.

Costs, computed at present levels, include the installation (construction, engineering and contingency) costs required for farm drainage systems for satisfactorily rapid removal of surface water accumulations that are likely to occur for the various conditions of rainfall and runoff involved. Requirements vary by soil mapping units and by land use. Costs include all ditching and appurtenant structural needs for systems to serve an average of one square mile. Estimates are based on standard design data for conditions involved.

Farm drainage system capital costs have been amortized for a useful life period of 10 years at 5 percent. Field experience in farm drainage work indicates that a 10 year useful life period is realistic in view of changes in ownership, cropping patterns, etc.. Maintenance costs, varying with the soil mapping unit and land use, have been added to the amortized annual equivalent of installation cost to derive the annual cost of farm drainage systems.

All farm drainage costs have been discounted on Table IX at 5 percent to account for an estimated 25 year lag to full installation, maintenance and benefit accrual, except for reaches W-1 (Indian Bayou), W-2 (Wabbaseka Bayou) and LBM-1 (Caney Creek) which were discounted at 5 percent to account for an estimated 20 year lag, and reach W-3 (Wabbaseka Bayou), where no group drainage is required and farm drainage is estimated to lag 10 years. Although land near existing outlets can be drained, con-

siderable areas will have to wait on farm drainage until group drainage facilities, connecting with the major drainage outlet, are installed.

GROUP DRAINAGE SYSTEMS AND COSTS

The area that would be served by the Bayou Meto Basin project requires a large amount of group drainage system installation to serve as intermediate drainage to connect farm systems with the major outlets. In all, approximately 700 miles of ditches with appurtenant structures are needed to serve the farm drainage systems that are anticipated to be installed.

Table VIII itemizes the costs required to install and maintain the group drainage and appurtenant structures. Installation costs have been amortized for a useful life period of 20 years at $3\frac{1}{2}$ percent. Field experience in group drainage work indicates that a 20 year useful life period is realistic in view of changing land use patterns, sedimentation problems, etc.. Maintenance costs have been added to this amount to derive the total annual cost of group drainage systems.

Group drainage costs have been discounted on Table IX at $3\frac{1}{2}$ percent to account for an estimated 15 year lag to full installation, maintenance, and benefit accrual, except in reaches W-1 (Indian Bayou), W-2 (Wabbaseka Bayou), and LEM-1 (Caney Bayou) which were discounted at $3\frac{1}{2}$ percent to account for an estimated lag of 10 years.

BENEFITS AND ASSOCIATED COSTS

Table IX summarizes net annual returns from Tables III and IV for zones A and B, annual costs of making land conversions (from Table VI), and establishing and maintaining farm and group drainage systems (Tables VII and VIII).

Returns and gross benefit, and all associated cost items, have been discounted in Column 3, Table IX, to account for an estimated lag and buildup period to full installation and maintenance requirements, and benefit accrual.

SUMMARY

The Bayou Meto Basin Project Area, except for parts of the Grand Prairie on the east and of the Arkansas River Bottomlands on the west which are mostly above overflow, is a moderately developed agricultural area, principally because of inadequate drainage throughout the basin. With the authorized project and extensions installed, extensive agricultural development can be expected, particularly in the alluvial land areas. Due to the

gradual reduction in available ground water for rice irrigation, and the major importance of rice to the Grand Prairie, this area, mostly above the limits of overflow, is not anticipated to develop as rapidly as the alluvial lands. This situation is reflected in the detailed computation tables. Economic soundness of such development and satisfactorily high level production can be assured only with large amounts of associated farm and group drainage. The major outlets, group ditches and farm systems need to be integral parts of a single system for removing surface water accumulations; this is the major function of the proposed facility.

Yields for flood-free years have been used throughout this report. The Corps of Engineers, therefore, may need to modify the future without project values to account for flood damage. They may also need to modify future with project values to account for less than complete flood protection under project conditions.

* * * * *

BASIN SUMMARY BY REACHES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reach	Acres	Gross	Cost	Net	Gross	Cost	Net	Difference in Net Value
		Future Without Project (Value of Production in Dollars)			Future With Project (Value of Production in Dollars)			
Bayou Meto B-1	: 38,177	: 2,036,188:	: 1,611,166:	: 425,382 <u>1/</u>	: 4,702,244:	: 3,852,347:	: 849,897	: 424,515 <u>1/</u>
Bayou Meto B-2	: 65,287	: 3,644,221:	: 2,977,481:	: 667,215 <u>1/</u>	: 7,294,524:	: 6,012,813:	: 1,281,711	: 614,496 <u>1/</u>
Bayou Meto B-3	: 111,378	: 5,193,285:	: 4,270,703:	: 922,714 <u>1/</u>	: 8,238,631:	: 6,397,974:	: 1,840,657	: 917,943 <u>1/</u>
Caney Bayou LBM-1	: 14,760	: 994,929:	: 830,509:	: 166,821 <u>1/</u>	: 2,462,630:	: 2,029,176:	: 433,454	: 266,633 <u>1/</u>
Salt Bayou LBM-2	: 31,427	: 1,807,329:	: 1,474,177:	: 334,937 <u>1/</u>	: 3,523,641:	: 2,859,034:	: 664,607	: 329,670 <u>1/</u>
Little Bayou Meto LBM-3	: 17,215	: 910,951:	: 731,208:	: 179,862 <u>1/</u>	: 1,783,326:	: 1,448,037:	: 335,289	: 155,427 <u>1/</u>
Indian Bayou W-1	: 22,271	: 1,429,537:	: 1,182,525:	: 248,663 <u>1/</u>	: 3,122,189:	: 2,535,289:	: 586,900	: 338,237 <u>1/</u>
Wabbasaka Bayou W-2	: 18,269	: 1,247,005:	: 1,000,376:	: 248,934 <u>1/</u>	: 2,243,394:	: 1,802,092:	: 441,302	: 192,368 <u>1/</u>
Wabbasaka Bayou W-3	: 573	: 49,471:	: 39,244:	: 10,270 <u>1/</u>	: 77,941:	: 60,815:	: 17,138 <u>1/</u>	: 6,868 <u>1/</u>
Bradley Slough	: 21,355	: 922,140:	: 778,072:	: 146,591 <u>1/</u>	: 2,282,524:	: 1,868,718:	: 413,806	: 267,215 <u>1/</u>
Basin Total	: 340,712 <u>2/</u>	: 18,235,056:	: 14,895,461:	: 3,351,389	: 35,731,044:	: 28,866,295:	: 6,864,761	: 3,513,372

1/ Adjusted to eliminate negative net return

2/ Total area Bayou Meto Basin Project reduced by 2,399 acres urban, 5,998 acres water, 21,498 acres dedicated to woodland, 40,093 acres public shooting ground, and 261,562 acres already drained, not requiring drainage, not anticipated to be drained or not anticipated to be cleared.

BAYOU METO BASIN
SUMMARY OF ANNUAL NET PRODUCTION RETURNS
AND ASSOCIATED COSTS

(1)	:	(2)	:	(3)
Item	:	Total	:	Discounted Amount
	:	<u>Dollars</u>	:	<u>Dollars</u>
1. Net return with project	:	6,864,761	:	xx
2. Net return without project	:	3,351,389	:	xx
3. Gross benefit to project	:	3,513,372	:	1,998,821 <u>2/</u>
	:		:	
4. Farm drainage cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	416,804	:	xx
b. Maintenance cost	:	332,435	:	xx
c. Total	:	749,239	:	425,094
	:		:	
5. Group drainage cost	:	xx	:	xx <u>3/</u>
a. Installation cost	:	186,479	:	xx
b. Maintenance cost <u>1/</u>	:	129,128	:	xx
c. Total	:	315,607	:	240,641
	:		:	
6. Conversion cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	287,174	:	xx
b. Maintenance cost	:	-	:	xx
c. Total	:	287,174	:	160,518
	:		:	

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated lag to full installation, maintenance, and benefit accrual.

3/ Discounted at $3\frac{1}{2}$ percent to account for estimated lag to full installation, maintenance, and benefit accrual.

BASIN: BAYOU METO

PROJECT: BAYOU METO MAIN STEM

REACH: B-1

STATE: ARKANSAS

Basin:	Bayou Meto
Project:	Bayou Meto
Reach:	B-1
State:	Arkansas

TABLE I
PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Total (Acres)
Zone A	1	2,057	2,431	-	-	4,488
	2	805	755	-	-	1,560
	4	9,299	2,354	-	-	11,653
	4SU	622	230	-	-	852
	6	219	274	-	-	493
	9S	13,286	3,886	-	-	17,172
	10	3,968	77	-	-	4,045
	11	750	-	-	-	750
	11SU	91	274	-	-	365
Subtotal, all soils		31,097	10,281	-	-	41,378
Urban		-	-	-	-	-
Watered		-	-	-	128	128
Total-Zone A		31,097	10,281	-	128	41,506
Zone B	1	4,666	5,876	-	-	10,542
	2	62	-	-	-	62
	4	7,692	6,467	-	-	14,159
	6	109	1,000	-	-	1,109
	9S	1,307	1,980	-	-	3,287
	11	-	74	-	-	74
	11SU	233	105	-	-	338
Subtotal, all soils		14,069	15,502	-	-	29,571
Urban		-	-	-	-	-
Watered		-	-	-	73	73
Total-Zone B		14,069	15,502	-	73	29,644
Zone C	1	39	50	-	-	89
	4	-	114	-	-	114
Subtotal, all soils		39	164	-	-	203
Urban		-	-	-	-	-
Watered		-	-	-	-	-
Total-Zone C		39	164	-	-	203
GRAND TOTAL - Reach B-1		45,205	25,947	-	201	71,353

Basin:	<u>Bayou Meto</u>
Project:	<u>Bayou Meto</u>
Reach:	<u>B-1</u>
State:	<u>Arkansas</u>

SUMMARY - TABLE IIA
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil :	Land use and crop :	<u>2/</u>	:	Production	
Unit :	distribution :	Acres	Unit	Per Acre	Total
:	:	:	:	:	:
All :	Open land	16,055	:	:	:
:	Crops	14,450	:	<u>3/</u>	:
:	Cotton	3,770	Lbs.Lint	349	1,316,685
:	Cottonseed	(3,770)	Ton	.3143	1,185.01
:	Corn	1,115	Bu.	40	44,600
:	Rice	2,703	Cwt.	26	71,598
:	Soybeans	3,589	Bu.	18	64,834
:	Oats (Grain)	937	Bu.	26	24,024
:	Oats (Sup.Past.)	(738)	Lbs.Beef	66	48,470
:	Perm. Pasture	783	Lbs.Beef	180	140,940
:	Idle	1,548	:	:	:
:	Other <u>1/</u>	1,605	:	:	:
:	Woodland	6,121	Acres	:	:
:	TOTAL	22,176	:	:	:
:	:	<u>4/</u>	:	:	:

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from Columns 3 and 6; rounded to nearest unit.
4/ Total area zone A reduced by 128 acres watered, and 19,202 acres lands already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

SUMMARY -- TABLE III A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS
 AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production: Per unit	(8) Total	(9) Cost of Production Per acre	(10) Total	(11) Net Return
All	Open land	9,650								
	Crops	8,685								
	Cotton	3,010	Lbs. Lint	3/ 406	1,221,645	.25	305,411	107.01	322,088	52,590 5/
	Cottonseed	(3,010)	Ton							
	Corn	515	Bu.	3653 46	1,099,488	63.00	69,267	39.01	20,089	14,557
	Rice	1,624	Cwt.	27	43,940	3.75	164,774	92.71	150,557	14,217
	Soybeans	2,054	Bu.	24	48,689	2.30	111,986	28.77	59,085	52,901
	Oats (Grain)	460	Bu.	29	13,414	.90	12,072	18.97	8,728	3,344
	Oats (Sup. Pasture)	(397)	Lbs. Beef	87	34,575	.2005	6,932	7.20	2,860	4,072
	Perme. Pasture	471	Lbs. Beef	223	105,215	.2005	21,096	31.48	14,829	6,267
	Idle	561								
	Other	965								
	Woodland	3,169	Acres			6.19	19,617	3.22	10,204	9,413
	TOTAL	12,819					745,801		588,440	157,361 5/
		7/								157,721 6/

1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages.
 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
 5/ Includes calculated negative net return.
 6/ Adjusted to eliminate negative net return.
 7/ Total area zone A reduced by 128 acres watered, 2,952 acres woodland not anticipated to be cleared, and 25,607 acres already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) <u>2/</u> Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production: Per unit	(8) Total	(9) Cost of production: Per acre	(10) Total	(11) Net Return
All	Open land	12,819								
	Crops	11,537								
	Cotton	6,250	Lbs. Lint	691 <u>3/</u>	4,317,055	.25	1,079,263	<u>4/</u>	176.68	1,104,278
	Cottonseed	(6,250)	Ton	.6217	3,885.35	63.00	244,777	-	-	-
	Corn	355	Bu.	60	21,186	1.45	30,720	49.61	17,610	13,110
	Rice	1,693	Cwt.	35	59,255	3.75	222,206	111.17	188,211	33,995
	Soybeans	1,775	Bu.	26	45,301	2.30	104,192	30.34	53,860	50,332
	Oats (Grain)	333	Bu.	39	12,846	.90	11,561	23.68	7,885	3,676
	Oats (Sup. Past.)	(149)	Lbs. Beef	90	13,410	.2005	2,689	7.52	1,120	1,569
	Perm. Pasture	555	Lbs. Beef	377	209,070	.2005	41,919	50.54	28,049	13,870
	Idle	576								
	Other	1,282								
	Woodland	-	Acres							
	TOTAL	<u>12,819</u> <u>5/</u>					<u>1,737,327</u>		<u>1,401,013</u>	<u>336,314</u>

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone A reduced by 128 acres watered, 2,952 acres woodland not anticipated to be cleared, and 25,607 acres lands already drained or not requiring drainage.

Basin:	Bayou Meto
Project:	Bayou Meto
Reach:	B-1
State:	Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil :	Land use and crop :	<u>2/</u>		Production	
Unit :	distribution :	Acres :	Unit :	Per Acre :	Total
:	:	:	:	:	:
All :	Open land :	14,069 :	:	:	:
:	Crops :	12,662 :	:	3/ :	:
:	Cotton :	2,289 :	Lbs. Lint :	332 :	761,035
:	Cottonseed :	(2,289) :	Ton :	2992 :	684,93
:	Corn :	692 :	Bu. :	41 :	28,372
:	Rice :	2,598 :	Cwt. :	30 :	78,000
:	Soybeans :	3,719 :	Bu. :	17 :	64,962
:	Oats (Grain) :	700 :	Bu. :	30 :	20,964
:	Oats (Sup. Past.) :	(700) :	Lbs. Beef :	79 :	55,110
:	Perm. Pasture :	1,332 :	Lbs. Beef :	191 :	254,750
:	Idle :	1,332 :	:	:	:
:	Other <u>1/</u> :	1,407 :	:	:	:
:	Woodland :	15,502 :	Acres :	:	:
:	TOTAL :	29,571 <u>4/</u> :	:	:	:
:	:	:	:	:	:

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages.
3/ Calculated from Columns 3 and 6; rounded to nearest unit.
4/ Total area zone B reduced by 73 acres watered.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

SUMMARY - TABLE III B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop: distribution	Acres	Unit	Production Per acre	Total	Value of production Per unit	Total	Cost of production Per acre	Total	Net Return
All	Open land	15,291								
	Crops	13,763								
	Cotton	4,538	Lbs. Lint	422	1,928,125	.25	482,031	114.30	522,118	69,237
	Cottonseed	(4,568)	Ton	3799	1,735.31	63.00	109,324			
	Corn	750	Bu.	50-	37,500	1.45	64,375	42.35	31,762	22,613
	Rice	2,733	Cwt.	31	84,723	3.75	317,711	102.19	279,285	38,426
	Soybeans	2,350	Bu.	23	55,098	2.30	126,726	28.71	67,472	59,254
	Oats (Grain)	782	Bu.	39	30,813	.90	27,731	23.98	18,753	8,978
	Oats (Sup. Past.)	(782)	Lbs. Beef	122	95,765	.2005	19,201	11.00	8,606	10,595
	Perm. Pasture	1,529	Lbs. Beef	297	453,740	.2005	90,974	40.76	62,315	28,659
	Idle	1,051								
	Other	1,528								
	Woodland	10,067	Acres			6.19	62,314	3.22	32,415	29,899
	TOTAL	25,358					1,290,387		1,022,726	267,661
		5/								

1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
 5/ Total area zone B reduced by 73 acres watered and 4,213 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Total	Value of production: Per unit:	Total	Cost of production: Per acre:	Total	Net Return
Tot	distribution			Per acre:						
All	Open land	25,358								
	Crops	22,823		3/				4/		
	Cotton	11,491	Lbs.Lint	592	6,797,575	.25	1,699,394	156.35	1,796,595	288,222
	Cottonseed	(11,491)	Ton	.5324	6,117.82	63.00	385,423	-	-	-
	Corn	585	Bu.	57	33,345	1.45	48,350	47.71	27,910	20,440
	Rice	4,039	Cwt.	34	137,326	3.75	514,972	108.92	439,928	75,044
	Soybeans	2,800	Bu.	25	70,960	2.30	163,209	30.28	84,785	78,424
	Oats (Grain)	242	Bu.	37	9,000	.90	8,100	22.86	5,532	2,568
	Oats (Sup.Past.)	(242)	Lbs.Beef	130	31,370	.2005	6,290	11.78	2,850	3,440
	Perm. Pasture	1,977	Lbs.Beef	351	694,160	.2005	139,179	47.41	93,734	45,445
	Idle	1,689								
	Other	2,535								
	Woodland	-	Acres							
	TOTAL	25,358					2,964,917		2,451,334	513,583
		5/								

1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit
 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
 5/ Total area zone B reduced by 73 acres watered and 4,213 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

TABLE II C 1/
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil :	Land use and Crop :	<u>3/</u> :	Production		
Unit :	distribution :	Acres :	Unit :	Per. acre :	Total
1 <u>2/</u> :	Open land :	39 :	:	:	:
:	Crops :	39 :	:	:	:
:	Idle :	39 :	:	:	:
:	Woodland :	164 :	Acres :	:	:
:	TOTAL :	203 :	:	:	:
:	:	:	:	:	:

- 1/ One soil only; no summary required
2/ Includes minor acreage soil unit 4
3/ Anticipated that woodland will remain in woodlands, and land cleared at present will eventually revert to woodland. No Table III C required.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Mapping Unit	Acres	Gross	Cost	Future without project (Production in Dollars)	Gross	Cost	Future with project (Production in Dollars)	Difference in Net Production
1	2,341	81,956	69,364	12,952	263,218	228,064	40,154	27,202 1/
2	1,077	51,457	39,338	12,119	148,591	120,017	28,574	16,455
4	6,619	450,831	341,065	109,766	1,062,158	842,302	219,856	110,090
4SU	421	31,111	22,732	8,379	41,348	31,219	10,129	1,750
10	2,361	130,446	115,941	14,505	217,012	179,411	37,601	23,096
Subtotal	12,819 2/	745,801	588,440	157,721	1,737,327	1,401,013	336,314	178,593
1	8,815	388,891	331,880	57,011	989,741	867,973	121,768	64,757
4	12,995	769,463	592,882	176,581	1,725,854	1,385,742	340,112	163,531
6	933	22,030	17,632	4,398	109,888	95,023	14,865	10,467
9S	2,337	85,053	60,246	24,807	111,177	79,756	31,421	6,614
11SU	278	24,950	20,086	4,864	28,257	22,840	5,417	553
Subtotal	25,358 3/	1,290,387	1,022,726	267,661	2,964,917	2,451,334	513,583	245,922
TOTAL	38,177	2,036,188	1,611,166	425,382	4,702,244	3,852,347	849,897	424,515

- 1/ Adjusted to eliminate negative net return
- 2/ Total area zone A reduced by 128 acres watered, 2,952 acres woodland not anticipated to be cleared, and 25,607 acres of lands already drained or not requiring drainage.
- 3/ Total area zones B & C reduced by 73 acres watered and 4,213 acres woodland not anticipated to be cleared and all of zone C, 203 acres.

Basin:	Bayou Meto
Project:	Bayou Meto
Reach:	B-1
State:	Arkansas

TABLE VI
LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion 1/	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	Acres	Dollars	Dollars	Dollars
Per Acre				
W to GC	xx	55	10	xx
W to IC	xx	55	10	xx
W to P	xx	55	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	11,144	612,920	111,440	724,360
W to IC	1,560	85,800	15,600	101,400
W to P	532	29,260	xx	29,260
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	727,980	127,040	855,020
Annual amortized value 2/	xx	xx	xx	46,838
Total annual cost of conversions	xx	xx	xx	46,838

1/ W-woodland; GC- general dry-farmed crops; IC- irrigated crops; (rice); P-pasture.

2/ Amortized over 50 years at 5 percent

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation 1/ Dollars	Annual Equivalent Instl, cost 2/ Dollars	Annual Maintenance Cost Dollars	Total Annual Cost Dollars
A	1 - General crops	1,496	25,885	3,352	2,987	6,339
	1 - Rice	611	5,274	683	203	886
	2 - General crops	843	12,647	1,638	1,459	3,097
	2 - Rice	126	1,088	141	42	183
	4 - General crops	5,600	74,475	9,645	8,593	18,238
	4 - Pasture	357	2,905	376	67	443
	4SU - General crops	330	4,389	568	506	1,074
	4SU - Pasture	49	399	52	9	61
	10 - General crops	1,020	13,565	1,757	1,565	3,322
	10 - Rice	956	7,942	1,028	305	1,333
	10 - Pasture	149	1,237	160	48	208
	Subtotal	11,537 3/4	149,806	19,400	15,784	35,184
1/	Includes engineering and contingency					
2/	Amortized at 5 percent over 10 years					
3/	Does not include 10 percent "other" land					

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-1
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit	Area	Total Cost	Annual Equivalent	Annual Maintenance	Total Annual
			Installation/	Instl. Cost 2/	Cost	Cost
		Acre	Dollars	Dollars	Dollars	Dollars
B	1 - General crops	3,601	62,308	8,069	7,189	15,258
	1 - Rice	1,350	11,653	1,509	448	1,957
	4 - General crops	5,721	76,084	9,853	8,779	18,632
	4 - Rice	955	8,243	1,067	317	1,384
	4 - Pasture	680	5,534	717	128	845
	6 - General crops	361	5,072	667	780	1,437
	6 - Rice	137	1,183	153	45	198
	6 - Pasture	56	786	102	60	162
	Subtotal	12,861	170,863	22,127	17,746	39,873
	TOTAL	24,398	320,669	41,527	33,530	75,057

1/ Includes engineering and contingency
 2/ Amortized at 5 percent over 10 years
 3/ Does not include 10 percent "other" land

Basin:	Bayou Meto
Project:	Bayou Meto
Reach:	B-1
State:	Arkansas

TABLE VIII
ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>	Cubic Yd.	844,400	0.19	160,436
Spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>				
Right-of-way easements	Acres	242	25.00	6,050
Crossings	Each	42	250.00	10,500
Swinging water gaps	Each	27	40.00	1,080
Pipe drop structures	Each	54	150.00	8,100
Flap gates	Each	20	100.00	2,000
Vegetative plantings	Acres	81	8.00	648
Total construction cost:	xx	xx	xx	188,814
Engineering cost	xx	xx	xx	18,881
Contingencies & legal	xx	xx	xx	18,881
Total installation cost				226,576
Annual equivalent-installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				15,942
Annual maintenance cost				13,217
Annual loss of production-right-of-way <u>2/</u>				1,497
Total annual cost of required group facilities				30,656

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production -right-of-way. 141 acres @ \$10.62 per acre.

Basin:	Bayou Meto
Project:	Bayou Meto
Reach:	B-1
State:	Arkansas

TABLE IX
SUMMARY OF ANNUAL NET PRODUCTION RETURNS
AND ASSOCIATED COSTS

(1)	:	(2)	:	(3)
Item	:	Total	:	Discounted amount
	:	Dollars	:	Dollars
1. Net return with project	:	849,897	:	xx
2. Net return without project	:	425,382	:	xx
3. Gross benefit to project	:	424,515	:	234,740 <u>2/</u>
4. Farm drainage cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	41,527	:	xx
b. Maintenance cost	:	33,530	:	xx
c. Total	:	75,057	:	41,504
5. Group drainage cost	:	xx	:	xx <u>3/</u>
a. Installation cost	:	15,942	:	xx
b. Maintenance cost <u>1/</u>	:	14,714	:	xx
c. Total	:	30,656	:	22,990
6. Conversion cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	46,838	:	xx
b. Maintenance cost	:	-	:	xx
c. Total	:	46,838	:	25,900
<u>1/</u> Includes loss of production, right-of-way				
<u>2/</u> Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.				
<u>3/</u> Discounted at $3\frac{1}{2}$ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.				

BASIN : BAYOU METO

PROJECT: BAYOU METO MAIN STEM

REACH : B-2

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Water (Acres)	Total (Acres)
Zone A	1	1,172	470	-	-	1,642
	2	601	7	-	-	608
	4	18,344	2,764	-	-	21,108
	6	1,172	1,140	-	-	2,312
	8	79	-	-	-	79
	9	936	40	-	-	976
	9S	11,821	221	-	-	12,042
	10	13,082	20	-	-	13,102
	11	99	-	-	-	99
Subtotal - all soils		47,306	4,662	-	-	51,968
Urban		-	-	366	-	366
Watered		-	-	-	27	27
Total - Zone A		47,306	4,662	366	27	52,361
Zone B	1	9,294	13,986	-	-	23,280
	2	389	193	-	-	582
	4	9,367	5,503	-	-	14,870
	6	1,744	5,227	-	-	6,971
	8	16	-	-	-	16
	9S	1,541	752	-	-	2,293
	10	973	1,009	-	-	1,982
	11	405	-	-	-	405
Subtotal - all soils		23,729	26,670	-	-	50,399
Urban		-	-	-	-	-
Watered		-	-	-	183	183
Total - Zone B		23,729	26,670	-	183	50,582
Zone C	1	264	8,015	-	-	8,279
	6	-	65	-	-	65
Subtotal - all soils		264	8,080	-	-	8,344
Urban		-	-	-	-	-
Watered		-	-	-	-	-
Total - Zone C		264	8,080	-	-	8,344
GRAND TOTAL - Reach B-2		71,299	39,412	366	210	111,287

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land Use and Crop	2/	Production		
Unit	Distribution	Acres	Unit	Per Acre	Total
All	: Open land	: 34,481	:	:	:
	: Crops	: 31,033	:	: 3/	:
	: Cotton	: 13,278	: Lbs. Lint	: 34 1/4	: 4,561,095
	: Cottonseed	: (13,278)	: Ton	: .3092	: 4,104.98
	: Corn	: 183	: Bu.	: 22	: 4,055
	: Rice	: 6,270	: Cwt.	: 26	: 162,558
	: Soybeans	: 3,045	: Bu.	: 16	: 47,883
	: Oats (Grain)	: 4,112	: Bu.	: 25	: 103,130
	: Oats (Sup. Past.)	: (2,001)	: Lbs. Beef	: 63	: 126,900
	: Perm. Pasture	: 1,922	: Lbs. Beef	: 180	: 345,960
	: Idle	: 2,223	:	:	:
	: Other 1/	: 3,448	:	:	:
	: Woodland	: 4,426	:	:	:
	: TOTAL	: 38,907 1/4	:	:	:

- 1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit
 4/ Total area Zone A reduced by 366 acres urban, 27 acres water, 15 acres dedicated to woodland, and 13,046 acres already drained or not requiring drainage.

Basin: Bayou Metro
 Project: Bayou Metro
 Reach: B-2
 State: Arkansas

SUMMARY - TABLE III A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,
 AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	2/ Acres	Unit	Production	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
Unit	distribution			Per Acre		Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open land	21,928								
	Crops	19,735		3/				4/		
	Cotton	8,484	Lbs.	398	3,376,070	.25	844,017	105.32	893,565	141,876 5/
	Cottonseed	(8,484)	Ton	.3581	3,038,47	63.00	191,424			142,351 6/
	Corn	97	Bu.	24	2,366	1.45	3,430	22.88	2,219	1,211
	Rice	4,029	Cwt.	27	107,365	3.75	402,618	91.70	369,462	33,156
	Soybeans	1,911	Bu.	19	36,576	2.30	84,125	25.10	47,958	36,167
	Oats (Grain)	2,437	Bu.	29	70,159	.90	63,143	18.80	45,806	17,337
	Oats (Sup. Past.)	(1,217)	Lbs. Beef	82	99,385	.2005	19,926	6.62	8,056	11,870
	Grain Sorghum	32	Bu.	17	544	1.53	832	17.18	550	282
	Perm. Pasture	1,252	Lbs. Beef	207	259,170	.2005	51,962	29.25	36,627	15,335
	Idle	1,493								
	Other 1/	2,193								
	Woodland	2,129	Acres			11.69	24,888	6.76	14,392	10,496
	TOTAL	24,057 7/				1,686,365			1,418,635	267,730 5/
										268,205 6/

- 1/ Farmsteads, farm roads, waste and non-agricultural.
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Includes calculated negative net return.
- 6/ Adjusted to eliminate negative net return.
- 7/ Total area zone A reduced by 27 acres watered, 366 acres urban, 15 acres dedicated to woodland, 2,297 acres woodland not anticipated to be cleared, and 25,599 acres already drained, not requiring drainage or not anticipated to be drained.

Basin: Bayou Meto
Project: Bayou Meto
Reach: B-2
State: Arkansas

SUMMARY - TABLE IV A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
Unit	distribution			Per Acre		Dollars	Dollars	Dollars	Dollars	Dollars
All	Open land	24,057								
	Crops	21,650		3/				4/		
	Cotton	10,629	Lbs. lint	658	6,996,165	.25	1,749,041	169.15	1,797,940	347,783
	Cottonseed	(10,629)	Ton	.5924	6,296,54	63.00	396,682			
	Corn	811	Bu.	57	46,242	1.45	67,051	47.38		28,623
	Rice	3,540	Cwt.	35	123,900	3.75	464,624	111.17		38,428
	Soybeans	2,049	Bu.	23	48,061	2.30	110,539	28.88		393,542
	Oats (Grain)	1,639	Bu.	43	70,733	.90	63,659	26.42		59,181
	Cats (Sup.Past.)	(893)	Lbs. Beef	154	137,960	.2005	27,661	14.45		43,306
	Grain Sorghum	43	Bu.	24	1,032	1.53	1,579	21.51		12,902
	Perm. Pasture	1,484	Lbs. Beef	368	546,745	.2005	109,622	49.53		925
	Idle	1,455								73,500
	Other	2,407								
	Woodland	-	Acres							
	TOTAL	24,057 5/					2,990,458		2,419,724	570,734

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone A reduced by 27 acres water, 366 acres urban, 15 acres dedicated to woodland, 2,297 acres woodland not anticipated to be cleared, and 25,599 acres drained, not requiring drainage, or not anticipated to be drained.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	2/	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	23,729			
	Crops	21,357		3/	
	Cotton	5,214	Lbs. Lint	341	1,778,410
	Cottonseed	(5,214)	Ton	.3070	1,600.56
	Corn	913	Bu.	28	25,381
	Rice	5,287	Cwt.	30	159,110
	Soybeans	2,798	Bu.	17	46,925
	Oats (Grain)	2,153	Bu.	22	48,349
	Oats (Sup. Past.)	(791)	Lbs. Beef	78	61,980
	Grain Sorghum	1,626	Bu.	18	30,012
	Perm. Pasture	1,017	Lbs. Beef	187	189,850
	Idle	2,349			
	Other 1/	2,372			
	Woodland	22,208	Acres		
	TOTAL	45,937 4/			

- 1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit
 4/ Total area zone B reduced by 183 acres water and 4,462 acres dedicated to woodland.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

SUMMARY - TABLE III B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop	2/	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit: Total	Cost of production: Per Acre: Total	Net Return		
Unit: distribution						Dollars: Dollars	Dollars: Dollars	Dollars: Dollars		
All: Open land		24,747								
: Crops		22,272		3/						
: Cotton		6,483	Lbs. lint:	435	820,230	.25	705,057	116.25	753,622	111,343
: Cottonseed		(6,483)	Ton	.3915	2,538.20	63.00	159,908			
: Corn		902	Bu.	33	30,048	1.45	43,570	29.70	26,793	16,777
: Rice		4,590	Cwt.	31	140,600	3.75	527,249	101.32	465,077	62,172
: Soybeans		2,911	Bu.	21	61,640	2.30	141,771	26.92	78,353	63,418
: Oats (Grain)		2,189	Bu.	27	60,054	.90	54,049	18.16	39,761	14,288
: Oats (Sup. Past.)		(817)	Lbs. Beef:	114	93,085	.2005	18,664	10.08	8,234	10,430
: Grain Sorghum		1,689	Bu.	21	36,240	1.53	55,447	19.94	33,675	21,772
: Perm. Pasture		1,074	Lbs. Beef:	270	289,870	.2005	58,119	37.43	40,197	17,922
: Idle		2,434								
: Other 1/		2,475								
: Woodland		15,966	Acres			11.69	186,642	6.76	107,930	78,712
: TOTAL		40,713 5/				1,950,476		6.76	1,553,642	396,834

- 1/ Farmsteads, farm roads, waste and non-agricultural.
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone B reduced by 183 acres water, 4,462 acres dedicated to woodland, and 5,224 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Value of production	Cost of production	Net			
Unit	distribution	Acres	Unit	Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
All	Open land	40,713								
	Crops	36,643		3/				4/		
	Cotton	19,167	Lbs. Lint	556	10,654,620	.25	2,663,654	148.71	2,850,406	417,365
	Cottonseed	(19,167)	Ton	5003	9,589,16	63.00	604,117			
	Corn	229	Bu.	34	7,786	1.45	11,290	28.46	6,517	4,773
	Rice	3,892	Cwt.	34	131,220	3.75	492,074	108.28	421,429	70,645
	Soybeans	5,242	Bu.	24	123,773	2.30	284,678	28.95	151,755	132,923
	Oats (Grain)	3,650	Bu.	36	131,459	.90	118,313	22.38	81,678	36,635
	Oats (Sup. Past.)	(462)	Lbs. Beef	114	52,800	.2005	10,586	10.12	4,675	5,911
	Grain Sorghum	1,403	Bu.	23	32,783	1.53	50,158	21.12	29,627	20,531
	Perm. Pasture	917	Lbs. Beef	336	308,305	.2005	61,816	45.58	41,798	20,018
	Idle	2,143								
	Other 1/	4,070								
	Woodland	-	Acres							
	TOTAL	40,713 5/					4,296,686		3,587,885	708,801

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone B reduced by 183 acres water, 4,462 acres dedicated to woodland, and 5,224 acres woodland not anticipated to be cleared.

Basin: Bayou Meto

Project: Bayou Meto

Reach: B-2

State: Arkansas

TABLE II C 1/
ZONE OF NO PROJECT BENEFIT
COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil:	Land use and crop :			Production	
Unit:	distribution :	Acres :	Unit :	Per Acre :	Total
1 <u>2/</u> :	Open land :	264 :			
	Crops :	238 :			
	Corn :	48 :	Bu. :	12 :	576
	Soybeans :	48 :	Bu. :	14 :	672
	Grain Sorghum :	47 :	Bu. :	16 :	752
	Idle :	95 :			
	Other <u>3/</u> :	26 :			
	Woodland :	253 :	Acres :		
	TOTAL :	517 <u>4/</u> :			

1/ One soil only; no summary required

2/ Includes minor acreage soil unit 6

3/ Farm roads, waste and non-agricultural

4/ Total area zone C reduced by 5,548 acres dedicated to woodland, and 2,279 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE III C 1/
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: land use and crop			Production			Value of production	Cost of production			Net
Unit: distribution	Acres	Unit	Per Acre	Total	Per Unit	Total	Per Acre	Total	Return	
1 2/3/ : Open land	517									
: Crops	465									
: Corn	93	Bu.	13	1,209	1.45	1,753	16.96	1,577	176	
: Soybeans	93	Bu.	15	1,395	2.30	3,208	21.82	2,029	1,179	
: Grain Sorghum	93	Bu.	17	1,581	1.53	2,419	17.18	1,598	821	
: Idle	186									
: Other	52									
: Woodland <u>4/</u>	-	Acres								
: TOTAL	517 <u>5/</u>					7,380		5,204	2,176	

- 1/ Data same for both "with project" and "without project" conditions. No Table IV C required.
 2/ Includes minor acreage soil unit 6.
 3/ One soil only; no summary required
 4/ Farm roads, waste and non-agricultural
 5/ Total area zone C reduced by 5,548 acres dedicated to woodland, and 2,279 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Acres	Future Without Project (Production in Dollars)		Future With Project (Production in Dollars)		Difference in Net		Production
		Gross	Cost	Net	Gross	Cost	Net	
ZONE A - (not subject to flooding)								
1	957	40,708	37,242	3,941	104,787	89,800	14,987	11,046
4	13,016	1,118,200	915,732	202,408	1,948,257	1,550,778	397,479	195,071
6	1,317	61,555	53,587	7,968	173,961	144,105	29,856	21,888
9	478	32,575	27,039	5,536	45,221	36,624	8,597	3,061
10	8,289	433,327	384,975	48,352	718,232	598,417	119,815	71,463
Subtotal	24,057	1,686,365	1,418,635	268,205	2,990,458	2,419,724	570,734	302,529
ZONES B & C - (subject to flooding)								
1	17,505	565,775	452,649	113,126	1,544,235	1,320,511	223,724	110,598
4	14,193	1,001,909	802,209	199,700	1,852,728	1,520,382	332,346	132,646
6	5,413	182,088	147,563	34,525	629,712	542,167	87,545	53,020
9S	1,954	92,973	63,206	29,767	107,748	73,737	34,011	4,244
10	1,755	63,395	52,354	11,041	117,927	95,427	22,500	11,459
11	405	51,716	40,865	10,851	51,716	40,865	10,851	-
Subtotal	41,230	1,957,856	1,558,846	399,010	4,304,066	3,593,089	710,977	311,967
TOTAL	65,287	3,644,221	2,977,481	667,215	7,294,524	6,012,813	1,281,711	614,496

- 1/ Adjusted to eliminate negative net return
- 2/ Total area Zone A reduced by 27 acres watered, 366 acres urban, 15 acres dedicated woodland, 2,297 acres woodland not anticipated to be cleared, and 25,539 acres already drained or not requiring drainage.
- 3/ Total area Zones B & C reduced by 103 acres watered, 10,010 acres dedicated woodland and 7,503 acres not anticipated to be cleared.

Basin: Bayou Meto

Project: Bayou Meto

Reach: B-2

State: Arkansas

TABLE VI
LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion ^{1/}	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
Per Acre	Acres	Dollars	Dollars	Dollars
W to GC	xx	60	10	xx
W to IC	xx	60	10	xx
W to P	xx	60	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	16,731	1,003,860	167,310	1,171,170
W to IC	733	43,980	7,330	51,310
W to P	631	37,860	xx	37,860
P to GC	556	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	1,085,700	174,640	1,260,340
Annual amortized value ^{2/}	xx	xx	xx	69,041
Total annual cost of conversions	xx	xx	xx	69,041

^{1/} W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture.

^{2/} Amortized over 50 years at 5 percent.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost	Annual Equivalent Instl. Cost	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	732	12,666	1,640	1,461	3,101
	1 - Rice	86	742	96	29	125
	1 - Pasture	43	401	52	9	61
	4 - General crops	10,542	140,198	18,156	16,177	34,333
	4 - Rice	469	4,048	524	156	680
	4 - Pasture	703	5,721	741	132	873
	6 - General crops	794	11,158	1,445	1,717	3,162
	6 - Rice	284	2,452	318	94	412
	6 - Pasture	107	1,504	195	116	311
	9 - General crops	306	4,659	527	469	996
	9 - Rice	90	778	101	30	131
	9 - Pasture	34	277	36	6	42
	10 - General crops	4,252	56,518	7,323	6,525	13,848
	10 - Rice	2,611	21,689	2,809	834	3,643
	10 - Pasture	597	4,559	642	191	833
	Subtotal	21,650	267,210	34,605	27,946	62,551

- 1/ Includes engineering and contingency
 2/ Amortized over 10 years at 5 percent
 3/ Does not include 10 percent "other" land

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation	Annual Equivalent Instl. Cost	Annual Maintenance	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
B	1 - General crops	8,811	152,456	19,743	17,591	37,334
	1 - Rice	613	5,291	685	203	888
	4 - General crops	7,765	103,267	13,373	11,915	25,288
	4 - Rice	304	2,625	340	101	441
	6 - General crops	2,362	33,193	4,298	5,107	9,405
	6 - Rice	795	6,863	889	264	1,153
	6 - Pasture	312	4,385	568	337	905
	10 - General crops	592	7,873	1,020	908	1,928
	10 - Rice	364	3,024	392	116	508
	10 - Pasture	83	689	89	26	115
	Subtotal	22,001	319,666	41,397	36,568	77,965
	TOTAL	43,651	586,876	76,002	64,514	140,516

- 1/ Includes engineering and contingency
 2/ Amortized over 10 years at 5 percent
 3/ Does not include 10 percent "other" land.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE VIII
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Shaping or spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	:Cubic Yard	:1,347,500	: 0.19	: 256,025
Right-of-way easements	:Acres	: 390	: 25.00	: 9,750
Crossings	:Each	: 81	: 250.00	: 20,250
Swinging water gaps	:Each	: 52	: 50.00	: 2,600
Pipe drop structures	:Each	: 104	: 150.00	: 15,600
Flap gates	:Each	: 40	: 100.00	: 4,000
Vegetative plantings	:Acres	: 156	: 8.00	: 1,248
Total construction cost	: xx	: xx	: xx	: 309,473
Engineering cost	: xx	: xx	: xx	: 30,947
Contingencies and legal	: xx	: xx	: xx	: 30,947
Total installation cost				: 371,367
Annual equivalent - installation cost (amortized for 20 years at 3½ percent)				: 26,129
Annual maintenance cost				: 15,474
Annual loss of production, right-of-way <u>2/</u>				: 2,773
Total annual cost of required group facilities				: 44,376

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production -right-of-way. 195 acres @ \$14.22 per acre

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-2
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Dollars
1. Net return with project	1,281,711	xx
2. Net return without project	667,215	xx
3. Gross benefit to project	614,496	339,792 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	76,002	xx
b. Maintenance cost	64,514	xx
c. Total	140,516	77,700
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	26,129	xx
b. Maintenance cost <u>1/</u>	18,247	xx
c. Total	44,376	33,278
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	69,041	xx
b. Maintenance cost	-	xx
c. Total	69,041	38,177

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at 3½ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.

BASIN : BAYOU METO

PROJECT: BAYOU METO MAIN STEM

REACH : B-3

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Game Preserve	Total (Acres)
Zone A	1	659	374	-	-	-	1,033
	2	1,394	8	-	-	-	1,402
	4	1,215	67	-	-	-	1,282
	6	848	-	-	-	-	848
	8	3,578	1,182	-	-	-	4,760
	9S	7,289	1,831	-	-	-	9,120
	10	88,800	3,761	-	-	-	92,561
	10S	10,001	250	-	-	-	10,251
	11	961	33	-	-	-	994
	12	339	-	-	-	-	339
Subtotal - all soils		115,084	7,506	-	-	-	122,590
Urban		-	-	1,254	-	-	1,254
Watered		-	-	-	1,199	-	1,199
Game Preserve		-	-	-	-	-	-
Total - Zone A		115,084	7,506	1,254	1,199	-	125,043
Zone B	1	6,752	25,220	-	-	-	31,972
	2	3,035	648	-	-	-	3,683
	4	4,746	1,225	-	-	-	5,971
	6	1,532	2,352	-	-	-	3,884
	8	1,127	4,100	-	-	-	5,227
	9S	2,768	3,887	-	-	-	6,655
	10	1,701	1,979	-	-	-	3,680
	10S	5,448	2,299	-	-	-	7,747
	11	1,186	666	-	-	-	1,852
	12	218	-	-	-	-	218
Subtotal- all soils		28,513	42,376	-	-	-	70,889
Urban		-	-	211	-	-	211
Watered		-	-	-	2,416	-	2,416
Game Preserve		-	-	-	-	7,441	7,441
Total - Zone B		28,513	42,376	211	2,416	7,441	80,957
Zone C	1	60	6,913	-	-	-	6,973
	4	20	1,555	-	-	-	1,575
	6	26	1,556	-	-	-	1,582
	8	-	828	-	-	-	828
	9S	-	243	-	-	-	243
	10	-	143	-	-	-	143
	10S	-	398	-	-	-	398
	11	6	691	-	-	-	697
Subtotal - all soils		112	12,327	-	-	-	12,439
Urban		-	-	-	-	-	-
Watered		-	-	-	1,439	-	1,439
Game Preserve		-	-	-	-	2,801	2,801
Total - Zone C		112	12,327	-	1,439	2,801	16,679
GRAND TOTAL - Reach B-3		143,709	62,209	1,465	5,054	10,242	222,679

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	91,064			
	Crops	81,958			
	Cotton	8,630	Lbs. Lint	<u>3/</u> 258	2,226,925
	Cottonseed	(8,630)	Ton	.2322	2,004.23
	Corn	108	Bu.	37	3,984
	Rice	21,989	Cwt.	24	530,904
	Soybeans	13,039	Bu.	13	172,535
	Oats (Grain)	20,787	Bu.	20	415,828
	Oats (Sup. Past.)	(9,894)	Lbs. Beef	55	545,805
	Grain Sorghum	78	Bu.	19	1,512
	Perm. Pasture	10,614	Lbs. Beef	180	1,908,875
	Idle	6,713			
	Other <u>1/</u>	9,106			
	Woodland	5,392	Acres		
	TOTAL	96,456 <u>4/</u>			

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from Columns 3 and 6; rounded to nearest unit
4/ Total area Zone A reduced by 1,254 acres urban, 1,199 acres water, and 26,134 acres already drained or not requiring drainage.

Basin: Bayou Meto

Project: Bayou Meto

Reach: B-3

State: Arkansas

SUMMARY - TABLE III A

ZONE FOR DRAINAGE CALCULATIONS ONLY

COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION

PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT

(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	2/	Production	Unit	Per Acre	Total	Value of production: Per Unit	Cost of production: Per Acre	Total	Net
Unit	distribution	Acres		Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open land	59,162								
	Crops	53,246								
	Cotton	3,215								
	Cottonseed	(3,215)								
	Corn	98								
	Rice	20,668								
	Soybeans	15,288								
	Oats (Grain)	5,549								
	Oats (Sup. Past.)	(4,994)								
	Grain Sorghum	34								
	Perm. Pasture	5,714								
	Idle-	2,680								
	Other 1/	5,916								
	Woodland	2,277								
	TOTAL	61,439 7/								

1/ Farms, farm roads, waste and non-agricultural

2/ Parenthetical amounts are duplicated acreages.

3/ Calculated from columns 3 and 6; rounded to nearest unit

4/ Calculated from columns 3 and 10; rounded to nearest cent

5/ Includes calculated negative net return

6/ Adjusted to eliminate negative net return

7/ Total area zone A reduced by 1,254 acres urban, 1,199 acres watered, 3,115 acres woodland

not anticipated to be cleared, and 58,036 acres already drained, not anticipated or not needing drainage.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
All	Open land	61,439								
	Crops	55,296								
	Cotton	3,336	Lbs. lint	546 3/4	1,823,000	.25	455,750	148.75	496,216	62,899
	Cottonseed	(3,336)	Ton	4918	1,640,70	63.00	103,365			
	Corn	104	Bu.	51	5,258	1.45	7,624	42.54	4,424	3,200
	Rice	21,423	Cwt.	35	749,805	3.75	2,811,768	111.17	2,381,596	430,172
	Soybeans	15,833	Bu.	20	320,619	2.30	737,424	26.51	419,673	317,751
	Oats (Grain)	5,793	Bu.	37	213,929	.90	192,537	22.70	131,494	61,043
	Oats (Sup. Past.)	(5,624)	Lbs. Beef	95	534,580	.2005	107,183	8.06	45,340	61,843
	Grain Sorghum	34	Bu.	25	850	1.53	1,300	22.13	752	548
	Perm. Pasture	6,011	Lbs. Beef	348	2,090,110	.2005	419,068	46.99	282,481	136,587
	Idle	2,762								
	Other	6,143								
	Woodland		Acres							
	TOTAL	61,439	5/				4,836,019		3,761,976	1,074,043

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone A reduced by 1,254 acres urban, 1,199 acres watered, 3,115 acres woodland not anticipated to be cleared, and 58,036 acres already drained, not anticipated to be drained or not needing drainage.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	28,513			
	Crops	25,658		<u>3/</u>	
	Cotton	4,136	Lbs. Lint	314	1,299,275
	Cottonseed	(4,136)	Ton	.2827	1,169.35
	Corn	548	Bu.	39	21,484
	Rice	2,660	Cwt.	29	77,322
	Soybeans	5,208	Bu.	16	82,435
	Oats (Grain)	4,767	Bu.	23	110,214
	Oats (Sup. Past.)	(2,481)	Lbs. Beef	80	199,315
	Grain Sorghum	122	Bu.	16	1,952
	Perm. Pasture	3,890	Lbs. Beef	176	685,545
	Idle	4,327			
	Other <u>1/</u>	2,855			
	Woodland	36,967	Acres		
	TOTAL	65,480 <u>4/</u>			

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from Columns 3 and 6; rounded to nearest unit.
4/ Total area Zone B reduced by 211 acres urban, 2,416 acres watered, 7,441 acres public shooting ground and 5,409 acres dedicated to Woodland.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE III B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	2/ Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
Unit	distribution	Acres	Unit	Per Acre	Total	Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open land	34,273								
	Crops	30,848								
	Cotton	7,345	Lbs. Lint	367	2,695,905	.25	673,975	99.35	729,724	97,107
	Cottonseed	(7,345)	Ton	.3303	2,426.29	63.00	152,856			
	Corn	1,321	Bu.	29	38,869	1.45	56,359	27.02	35,688	20,671
	Rice	3,441	Cwt.	29	100,582	3.75	377,180	98.07	337,472	39,708
	Soybeans	5,933	Bu.	21	122,619	2.30	282,024	26.52	157,352	124,672
	Cats (Grain)	5,442	Bu.	30	160,674	.90	144,605	19.16	104,285	40,320
	Cats (Sup. Past.)	(2,251)	Lbs. Beef	102	228,610	.2005	45,837	8.76	19,709	26,128
	Grain Sorghum	504	Bu.	18	9,072	1.53	13,880	17.80	8,971	4,909
	Perm. Pasture	3,663	Lbs. Beef	231	845,065	.2005	169,436	32.10	117,596	51,840
	Idle	3,199								
	Other 1/	3,425								
	Woodland	14,539	Acres			8.16	118,638	4.73	68,770	49,868
	TOTAL	48,812	57				2,034,790		1,579,567	455,223

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 2,416 acres water, 211 acres urban, 5,409 acres dedicated to woodland, 7,441 acres public shooting ground, and 16,668 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop		2/	Unit	Production	Value of production:	Cost of production:	Net			
Unit: distribution	Acres		Per Acre	Total	Per Unit:	Total	Per Acre	Total	Return	
ALL					Dollars	Dollars	Dollars	Dollars	Dollars	
: Open land	: 48,812									
: Crops	: 43,930									
: Cotton	: 10,199		: Lbs. Lint:	492	: 5,017,250	: 25	: 1,254,312	131.01	: 1,336,128	: 202,662
: Cottonseed	: (10,199)		: Ton	4427	: 4,515.52	: 63.00	: 284,478			
: Corn	: 1,891		: Bu.	36	: 68,074	: 1.45	: 98,707	30.80	: 58,237	: 40,470
: Rice	: 5,334		: Cwt.	33	: 178,589	: 3.75	: 669,707	107.75	: 574,760	: 94,947
: Soybeans	: 8,185		: Bu.	22	: 182,315	: 2.30	: 419,323	27.93	: 228,601	: 190,722
: Cats (Grain)	: 7,584		: Bu.	36	: 271,866	: .90	: 244,679	22.20	: 168,347	: 76,332
: Cats (Sup. Past.)	: (4,436)		: Lbs. Beef:	96	: 427,870	: .2005	: 85,787	8.21	: 36,411	: 49,376
: Grain Sorghum	: 905		: Bu.	22	: 19,910	: 1.53	: 30,462	20.27	: 18,344	: 12,118
: Perm. Pasture	: 5,060		: Lbs. Beef:	289	: 1,462,580	: .2005	: 293,247	39.81	: 201,426	: 91,621
: Idle	: 4,772									
: Other	: 4,882									
: Woodland	: -		: Acres							
: TOTAL	: 48,812	5/					: 3,380,702		: 2,622,254	: 758,448

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 2,416 acres water, 211 acres urban, 5,409 acres dedicated to woodland, 7,441 acres public shooting ground, and 16,668 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE II C
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1)	:	(2)	:	(3)	:	(4)	:	(5)	:	(6)
Soil	:	Land use and crop	:		:		:	Production	:	
Unit	:	distribution	:	Acres	:	Unit	:	Per Acre	:	Total
	:		:		:		:		:	
All	:	Open land	:	112	:		:		:	
	:	Crops	:	103	:		:		:	
	:	Idle	:	103	:		:		:	
	:	Other <u>1/</u>	:	9	:		:		:	
	:	Woodland	:	1,015	:	Acres	:		:	
	:	TOTAL	:	1,127 <u>2/</u>	:		:		:	
	:		:		:		:		:	

1/ Farm roads, waste and non-agricultural

2/ Total area Zone C reduced by 2,801 acres game refuge,
 1,439 acres watered, 2,173 acres dedicated to woodland,
 and 9,139 acres not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

SUMMARY - TABLE III C ^{1/}
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
 COSTS AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acre	Unit	Production Per Acre	Total	Value of production: Per Unit	Cost of production: Per Acre	Net Return		
A11	Open land	1,127								
	Crops	1,015								
	Corn	204	Bu.	24 ^{3/4}	4,876	1.45	7,069	24.01 ^{14/}	4,899	2,170
	Soybeans	204	Bu.	19	3,883	2.30	8,930	25.08	5,116	3,814
	Grain Sorghum	201	Bu.	19	3,863	1.53	5,911	18.55	3,729	2,182
	Idle	406								
	Other ^{2/}	112								
	Woodland	-	Acre							
	TOTAL	1,127					21,910		13,744	8,166

- 1/ Data same for both "with project" and "without project". No Table IV C required
- 2/ Farm roads, waste and non-agricultural
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone C reduced by 2,801 acres public shooting ground; 1,439 acres water, 2,173 acres dedicated to woodland, and 9,139 acres not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Acres	Gross	Cost	Net	Gross	Cost	Net	Difference in Net Production
						</		

1/ Adjusted to eliminate negative net return
 2/ Total area Zone A reduced by 1,254 acres urban, 1,199 watered, 3,115 acres woodland not anticipated to be cleared, and 58,036 acres already drained, not anticipated to be drained or not needing drainage.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1) Soil Unit	(2) Acres	(3) Future Without Project (Production in Dollars)	(4) Future With Project (Production in Dollars)	(5) Difference in Net Production	(6) Future Without Project (Production in Dollars)	(7) Future With Project (Production in Dollars)	(8) Difference in Net Production	(9) Difference in Net Production
ZONES B & C (subject to flooding)								
1	20,776	540,588	443,148	97,440	1,249,680	992,765	256,915	159,475
2	3,133	214,392	162,206	52,186	277,416	212,598	64,818	12,632
4	5,778	409,468	309,589	99,879	567,155	434,098	133,057	33,178
6	2,649	105,691	88,993	16,698	221,585	181,127	40,458	23,760
8	2,537	78,649	66,993	11,656	202,906	161,885	41,021	29,365
9S	4,296	185,600	126,311	59,289	243,746	167,263	76,483	17,194
10	2,477	84,911	68,551	16,360	149,682	114,572	35,110	18,750
10S	6,386	261,779	183,654	78,125	282,869	200,721	82,148	4,023
11	1,907	175,622	143,866	31,756	207,573	170,969	36,604	4,848
Subtotal	49,939	2,056,700	1,593,311	463,389	3,402,612	2,635,998	766,614	303,225
TOTAL	111,378	5,193,285	4,270,703	922,714	8,238,631	6,397,974	1,840,657	917,943

1/ Total area Zones B & C reduced by 3,855 acres water, 211 acres urban, 7,582 acres dedicated to woodland, 10,242 acres public shooting ground, and 25,807 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
Project: Bayou Meto
Reach: B-3
State: Arkansas

TABLE VI
LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	Acres	Dollars	Dollars	Dollars
<u>Per Acre</u>				
W to GC	xx	70	10	xx
W to IC	xx	70	10	xx
W to P	xx	70	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
<u>Project</u>				
W to GC	12,474	873,180	124,740	997,920
W to IC	2,648	185,360	26,480	211,840
W to P	1,694	118,580	xx	118,580
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	1,177,120	151,220	1,328,340
Annual amortized value <u>2/</u>	xx	xx	xx	72,766
Total annual cost of conversions	xx	xx	xx	72,766

1/ W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture

2/ Amortized over 50 years at 5 percent.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation	Annual Equivalent Instl. Cost	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	383	6,628	858	765	1,623
	1 - Rice	127	1,096	142	42	184
	1 - Pasture	44	409	53	9	62
	2 - General crops	693	10,396	1,346	1,200	2,546
	2 - Rice	82	707	92	27	119
	2 - Pasture	41	382	49	9	58
	4 - General crops	517	6,876	890	793	1,683
	4 - Rice	103	839	115	34	149
	4 - Pasture	69	561	73	13	86
	6 - General crops	81	1,139	147	175	322
	6 - Rice	213	1,838	238	71	309
	6 - Pasture	33	464	60	36	96
	8 - General crops	1,067	20,557	2,662	2,372	5,034
	8 - Rice	800	6,905	894	266	1,160
	8 - Pasture	800	12,293	1,592	473	2,065
	10 - General crops	25,121	334,085	43,264	38,548	81,812
	10 - Rice	20,098	166,954	21,621	6,421	28,042
	10 - Pasture	5,024	41,734	5,405	1,605	7,010
	Subtotal	55,296	613,913	79,501	52,859	132,360

- 1/ Includes engineering and contingency
 2/ Amortized over 10 years at 5 percent
 3/ Does not include 10 percent "other" land

Basin: Bayou Meto
Project: Bayou Meto
Reach: B-3
State: Arkansas

TABLE VII
ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost	Annual Equivalent Instl. Cost	Annual Maintenance Cost	Total Annual Cost
			Dollars 1/ Installation	Dollars 2/ Instl. Cost	Dollars 2/ Cost	Dollars Cost
B	1 - General crops	9,101	157,474	20,393	18,170	38,563
	1 - Rice	1,820	15,710	2,034	604	2,638
	1 - Pasture	1,214	11,299	1,463	261	1,724
	2 - General crops	1,179	17,688	2,291	2,041	4,332
	2 - Rice	272	2,348	304	90	394
	2 - Pasture	363	3,379	438	78	516
	4 - General crops	2,446	32,530	4,213	3,753	7,966
	4 - Rice	305	2,632	341	101	442
	4 - Pasture	306	2,491	323	57	380
	6 - General crops	966	13,574	1,758	2,088	3,846
	6 - Rice	345	2,978	386	115	501
	6 - Pasture	69	970	126	75	201
	8 - General crops	1,090	21,000	2,719	2,423	5,142
	8 - Rice	389	3,358	435	129	564
	8 - Pasture	78	1,198	155	46	201
	10 - General crops	930	12,368	1,602	1,427	3,029
	10 - Rice	389	3,232	419	124	543
	10 - Pasture	232	1,926	249	74	323
	Subtotal	21,494	306,155	39,649	31,656	71,305
Total		76,790	920,068	119,150	84,515	203,665

1/ Includes engineering and contingency
3/ Does not include 10 percent "other" land
2/ Amortized over 10 years at 5 percent

Basin: Poyou Meto
 Project: Poyou Meto
 Reach: 1-3
 State: Arkansas

TABLE VIII
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost Dollars	Total Cost Dollars
Excavation <u>1/</u>				
Spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic Yard	4,087,550	0.18	735,759
Right-of-way easements	Acres	1,007	25.00	25,175
Crossings	Each	210	250.00	52,500
Swinging water gaps	Each	134	50.00	6,700
Pipe drop structures	Each	268	150.00	40,200
Flap gates	Each	150	100.00	15,000
Vegetative plantings	Acres	403	8.00	3,224
Total construction cost	xx	xx	xx	878,558
Engineering cost	xx	xx	xx	87,856
Contingencies and legal	xx	xx	xx	87,856
Total installation cost				1,054,270
Annual equivalent - installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				74,178
Annual maintenance cost				43,928
Annual loss of production - right-of-way <u>2/</u>				3,496
Total annual cost of required group facilities				121,602

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production - right-of-way. 503 acres @ \$6.95 per acre.

Basin: Bayou Meto
 Project: Bayou Meto
 Reach: B-3
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Amount
		Dollars
1. Net return with project	1,840,657	xx
2. Net return without project	922,714	xx
3. Gross benefit to project	917,943	507,586 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	119,150	xx
b. Maintenance cost	84,515	xx
c. Total	203,665	112,619
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	74,178	xx
b. Maintenance cost <u>1/</u>	47,424	xx
c. Total	121,602	91,192
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	72,766	xx
b. Maintenance cost	-	xx
c. Total	72,766	40,237

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at 3½ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.

BASIN : BAYOU METO

PROJECT: CANEY BAYOU

REACH : LBM-1

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: LBM-1
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Total (Acres)
Zone A	1	3,964	1,174	5,138
	2	409	54	463
	4	7,540	1,174	8,714
	6	492	424	916
	11	2,253	36	2,289
Total - Zone A		14,658	2,862	17,520
Zone B	1	639	407	1,046
	4	1,916	307	2,223
	6	277	748	1,025
Total - Zone B		2,832	1,462	4,294
GRAND TOTAL - Reach: LBM-1		17,490	4,324	21,814

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: LBM-1
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	12,213			
	Crops	10,990		<u>3/</u>	
	Cotton	5,843	Lbs. Lint	310	1,813,310
	Cottonseed	(5,843)	Ton	.2793	1,631,98
	Corn	495	Bu.	32	15,796
	Rice	418	Cwt.	30	12,540
	Soybeans	2,376	Bu.	20	46,880
	Oats (Grain)	796	Bu.	17	13,415
	Oats (Sup. Past.)	(4)	Lbs. Beef	70	280
	Grain Sorghum	598	Bu.	20	11,960
	Perm. Pasture	20	Lbs. Beef	145	2,900
	Idle	444			
	Other <u>1/</u>	1,221			
	Woodland	2,826	Acres		
	TOTAL	15,039 <u>4/</u>			

1/ Farmsteads, farm roads, waste and non-agricultural

2/ Parenthetical amounts are duplicated acreages

3/ Calculated from columns 3 and 6; rounded to nearest unit

4/ Total area Zone A reduced by 2,289 acres not needing drainage and 192 acres already drained.

Basin: Bayou Meto
 Project: Cancy Bayou
 Reach: IBM-1
 State: Arkansas

SUMMARY - TABLE III A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
 COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil unit	Land use and crop distribution	Acre	Unit	Production Per Acre	Total	Value of production Per unit	Total	Cost of production Per Acre	Total	Net Return
ALL	Open land	9,732								
	Crops	8,759								
	Cotton	5,223	Lbs. Lint	360 ^{3/}	1,884,120	.25	471,030	97.81 ^{4/}	510,871	69,390 ^{5/}
	Cottonseed	(5,223)	Ton	.3245	1,695.71	63.00	106,830			66,989 ^{6/}
	Corn	299	Bu.	44	13,214	1.45	19,160	37.30	11,153	8,007
	Rice	194	Cwt.	30	5,820	3.75	21,825	99.56	19,392	2,433
	Soybeans	778	Bu.	23	17,802	2.30	40,944	28.15	21,899	19,045
	Oats (Grain)	925	Bu.	28	26,125	.90	23,512	18.59	17,199	6,313
	Oats (Sup.Past.)	(59)	Lbs. Beef	109	6,450	.2005	1,294	9.54	563	731
	Grain Sorghum	636	Bu.	22	13,988	1.53	21,401	20.28	12,895	8,506
	Perm. Pasture	358	Lbs. Beef	227	81,400	.2005	16,321	32.09	11,489	4,832
	Idle	346								
	Other ^{1/}	973								
	Woodland	868	Acre			6.91	5,997	4.14	3,594	2,403
	TOTAL	10,600 ^{7/}					728,314		609,055	121,660 ^{5/}
										119,259 ^{6/}

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Adjusted to eliminate negative net return
- 6/ Includes calculated negative net return
- 7/ Total project acreage of Zone A reduced by 6,920 acres of land not anticipated to receive drainage benefits from project.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production: Per Unit	(8) Total	(9) Cost of production: Per Acre	(10) Total	(11) Net Return
ALL	Open land	10,600								
	Crops	9,541								
	Cotton	7,484	Lbs. lint	723 3/4	5,410,280	.25	1,352,570	185.02	1,384,757	274,576
	Cottonseed	(7,484)	Ton	6506	4,869,25	63.00	306,763			
	Corn	326	Bu.	82	26,616	1.45	38,593	78.34	25,539	13,054
	Rice	302	Cwt.	35	10,570	3.75	39,638	11.17	33,573	6,065
	Soybeans	672	Bu.	27	18,317	2.30	42,129	31.65	21,269	20,860
	Oats (Grain)	326	Bu.	49	16,093	.90	14,484	30.11	9,816	4,668
	Oats (Sup. Past.)	(28)	Lbs. Beef	215	6,020	.2005	1,207	20.93	586	621
	Grain Sorghum	241	Bu.	24	5,784	1.53	8,850	21.51	5,184	3,666
	Idle	190								
	Other 1/	1,059								
	Woodland	-	Acres							
	TOTAL	10,600	5/				1,804,234		1,480,724	323,510

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total project acreage of Zone A reduced by 6,920 acres of land not anticipated to receive drainage benefits from project.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: LBM-1
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	2/	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	2,832			
	Crops	2,548		3/	
	Cotton	1,358	Lbs. Lint:	318	431,330
	Cottonseed	(1,358)	Ton	.2889	392.40
	Corn	109	Bu.	34	3,716
	Rice	80	Cwt.	30	2,400
	Soybeans	569	Bu.	20	11,466
	Oats (Grain)	180	Bu.	17	3,046
	Grain Sorghum	155	Bu.	20	3,100
	Idle	97			
	Other 1/	284			
	Woodland	1,462	Acres		
	TOTAL	4,294			

- 1/ Farmsteads, farm roads, waste and non-agricultural.
 2/ Parenthetical amounts are duplicated acreages.
 3/ Calculated from columns 3 and 6; rounded to nearest unit.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

SUMMARY - TABLE III B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Production Unit	(5) Per Acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production Per Acre	(10) Total	(11) Net Return
All	Open land	3,311								
	Crops	2,980								
	Cotton	1,773	Lbs. Lint	384	680,220	.25	170,055	4/	104,06	184,501
	Cottonseed	(1,773)	Ton	.3453	612,19	63.00	38,569			24,123
	Corn	113	Bu.	44	5,008	1.45	7,262			2,996
	Rice	51	Cwt.	30	1,530	3.75	5,738			640
	Soybeans	260	Bu.	23	5,966	2.30	13,721			6,385
	Oats (Grain)	313	Bu.	30	9,253	.90	8,327			2,318
	Oats (Sup. Past.)	(18)	Lbs. Beef	145	2,610	.2005	523			281
	Grain Sorghum	217	Bu.	22	4,801	1.53	7,346			2,928
	Perm. Pasture	135	Lbs. Beef	327	44,145	.2005	8,851			2,850
	Idle	118								
	Other 1/	331								
	Woodland	849	Acres			7.33	6,223	4.22	3,583	2,640
	TOTAL	4,160 5/					266,615		221,454	45,161

- 1/ Farmssteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 134 acres woodland to remain in woodland due to non-participation in land conversions.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop				Production		Value of production	Cost of production			Net
Unit: distribution	Acres	2/	Unit	Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL : Open land	4,160									
: Crops	3,744			3/				4/		
: Cotton	2,951		Lbs. Lint	670	1,978,255	25	494,564	174.34	514,465	92,266
: Cottonseed	(2,951)		Ton	6033	1,780.43	63.00	112,167			
: Corn	143		Bu.	73	10,483	1.45	15,200	72.24	10,331	4,869
: Rice	87		Cwt.	34	2,958	3.75	11,093	108.92	9,476	1,617
: Soybeans	273		Bu.	26	7,145	2.30	16,433	30.85	8,423	8,010
: Oats (Grain)	143		Bu.	46	6,600	90	5,940	28.10	4,019	1,921
: Oats (Sup. Past.)	(14)		Lbs. Beef	205	2,870	2005	575	19.86	278	297
: Grain Sorghum	72		Bu.	22	1,584	1.53	2,424	20.28	1,460	964
: Idle	75									
: Other 1/	416									
: Woodland	-		Acres							
: TOTAL	4,160	5/					658,396		548,452	109,944

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent
- 5/ Total in Zone B reduced by 134 acres woodland to remain in woodland due to non-participation in land conversions.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Acres	Gross	Cost	Net	Gross	Cost	Net	Difference in Net Production
		Future Without Project (Production in Dollars)				Future With Project (Production in Dollars)		
ZONE A - (not subject to flooding)								
1	3,353	153,358	146,125	9,634 1/2	490,457	429,876	60,581	50,947 1/2
2	283	22,366	18,403	3,963	49,542	40,243	9,299	5,336
4	6,340	528,292	422,424	105,868	1,157,049	922,812	234,237	128,369
6	624	24,298	22,103	2,195	107,186	87,793	19,393	17,198
Subtotal	10,600 2/3	728,314	609,055	121,660	1,804,234	1,480,724	323,510	201,850
ZONE B - (subject to flooding)								
1	985	43,564	40,330	3,234	123,739	112,259	11,480	8,246
4	2,202	191,178	153,683	37,495	378,802	306,259	72,543	35,048
6	973	31,873	27,441	4,432	155,855	129,934	25,921	21,489
Subtotal	4,160 3/4	266,615	221,454	45,161	658,396	548,452	109,944	64,783
TOTAL	14,760	994,929	830,509	166,821	2,462,630	2,029,176	433,454	266,633

- 1/ Adjusted to eliminate negative net return
 2/ Total area Zone A reduced by 6,920 acres of land not anticipated to be benefited by the project.
 3/ Total area Zone B reduced by 134 acres of land not anticipated to benefit from the project.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: LBM-1
 State: Arkansas

TABLE VI
 LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion	Total	Cost of	Cost of	Total
<u>1/</u>	<u>Amount</u>	<u>Clearing</u>	<u>Smoothing</u>	<u>Cost</u>
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Per Acre	:	:	:	:
W to GC	: xx:	50:	5	: xx
W to IC	: xx:	50:	5	: xx
W to P	: xx:	- :	xx	: xx
P to GC	: xx:	xx:	-	: xx
P to IC	: xx:	xx:	-	: xx
GC to IC	: xx:	xx:	xx	: xx
GC to P	: xx:	xx:	xx	: xx
	:	:	:	:
Project	:	:	:	:
W to GC	: 1,573:	78,650:	7,865	: 86,515
W to IC	: 144:	7,200:	720	: 7,920
W to P	: - :	- :	xx	: -
P to GC	: 493:	xx:	-	: -
P to IC	: - :	xx:	-	: -
GC to IC	: - :	xx:	xx	: -
GC to P	: - :	xx:	xx	: -
	:	:	:	:
Total project	: xx:	85,850:	8,585	: 94,435
	:	:	:	:
Annual amortized value <u>2/</u>	: xx:	xx:	xx	: 5,173
	:	:	:	:
Total annual cost of conversions	: xx:	xx:	xx	: 5,173
	:	:	:	:

1/ W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture
2/ Amortized over 50 years at 5 percent

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil Mapping Unit and Land Use	Area Acres	Total Cost Installation	Annual Equivalent Instl. Cost	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	2,716	46,995	6,086	5,422	11,508
	1 - Rice	302	2,606	337	100	437
	2 - General crops	255	3,826	495	441	936
	4 - General crops	5,706	75,883	9,827	8,756	18,583
	6 - General crops	562	7,897	1,023	1,215	2,238
	Subtotal	9,541	137,207	17,768	15,934	33,702
	1 - General crops	575	9,949	1,288	1,148	2,436
	1 - Rice	63	544	70	21	91
	4 - General crops	1,531	20,360	2,637	2,349	4,986
	6 - General crops	706	9,921	1,285	1,526	2,811
B	Subtotal	2,874	40,774	5,280	5,044	10,324
	TOTAL	12,415	177,981	23,048	20,978	44,026

1/ Includes engineering and contingency
 2/ Amortized over 10 years at 5 percent
 3/ 10 percent "other" land not included.

Basin:	Bayou Meto
Project:	Caney Bayou
Reach:	LBM-1
State:	Arkansas

TABLE VIII
ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Shaping or spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic Yard	288,000	.20	57,600
Right-of-way easements	Acres	174	20.00	3,480
Crossings	Each	19	300.00	5,700
Swinging water gaps	Each	9	40.00	360
Pipe drop structures	Each	40	80.00	3,200
Flap gates	Each	-	-	-
Vegetative plantings	Acre	44	8.00	352
Total construction cost	xx	xx	xx	70,692
Engineering cost	xx	xx	xx	7,069
Contingencies and legal	xx	xx	xx	7,069
Total installation cost				84,830
Annual equivalent installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				5,969
Annual maintenance cost				3,535
Annual loss of production, right-of-way <u>2/</u>				1,232
Total annual cost of required group facilities				10,736

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production on 70 acres right-of-way @ \$17.60 per acre.

Basin: Bayou Meto
 Project: Caney Bayou
 Reach: IBM-1
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Amount
		Dollars
1. Net return with project	433,454	xx
2. Net return without project	166,821	xx
3. Gross benefit to project	266,633	165,638 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	23,048	xx
b. Maintenance cost	20,978	xx
c. Total	44,026	27,350
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	5,969	xx
b. Maintenance cost <u>1/</u>	4,767	xx
c. Total	10,736	8,915
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	5,173	xx
b. Maintenance cost	-	xx
c. Total	5,173	3,214

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 20 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at 3½ percent to account for estimated 10 year lag to full installation, maintenance, and benefit accrual.

BASIN: BAYOU MOTO

PROJECT: SALT BAYOU

REACH: LBM-2

STATE: ARKANSAS

Basin:	Bayou Meto
Project:	Salt Bayou
Reach:	LBM-2
State:	Arkansas

TABLE I
PRESENT LAND USE

Zone	Soil map- Ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Total (Acres)
Zone A	1	8,173	1,338	-	-	9,511
	2	1,286	392	-	-	1,678
	4	12,304	423	-	-	12,727
	4SU	101	137	-	-	238
	6	92	174	-	-	266
	11	12,140	690	-	-	12,830
Sub-total, all soils		34,096	3,154	-	-	37,250
Urban		-	-	92	-	92
Watered		-	-	-	-	-
Total - Zone A		34,096	3,154	92	-	37,342
Zone B	1	6,406	6,689	-	-	13,095
	2	58	-	-	-	58
	4	2,097	131	-	-	2,228
	6	-	141	-	-	141
	11	91	37	-	-	128
Sub-total, all soils		8,652	6,998	-	-	15,650
Urban		-	-	-	-	-
Watered		-	-	-	101	101
Total - Zone B		8,652	6,998	-	101	15,751
Zone C	1	1,229	4,298	-	-	5,527
Sub-total, all soils		1,229	4,298	-	-	5,527
Urban		-	-	-	-	-
Watered		-	-	-	-	-
Total - Zone C		1,229	4,298	-	-	5,527
GRAND TOTAL-						
Reach: LBM-2		43,977	14,450	92	101	58,620

Basin:	Bayou Meto
Project:	Salt Bayou
Reach:	LBM-2
State:	Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6) :
Soil :	Land use and crop:	<u>2/</u>	Production		
Unit :	distribution	Acres	Unit	Per Acre	Total
:	:	:	:	:	:
All :	Open land	20,204	:	:	:
:	Crops	18,183	:	<u>3/</u>	:
:	Cotton	7,063	Lbs.Lint	350	2,468,985
:	Cottonseed	(7,063)	Ton	.3146	2,222.08
:	Corn	479	Bu.	40	19,160
:	Rice	3,779	Cwt.	30	113,370
:	Soybeans	3,794	Bu.	19	72,418
:	Oats (Grain)	1,541	Bu.	21	31,762
:	Oats (Sup.Past)	(58)	Lbs.Beef	70	4,060
:	Grain Sorghum	387	Bu.	19	7,165
:	Perm. Pasture	46	Lbs.Beef	145	6,670
:	Idle	1,094	:	:	:
:	Other <u>1/</u>	2,021	:	:	:
:	Woodland	2,464	Acres	:	:
:	TOTAL	22,668	:	:	:
:	:	<u>4/</u>	:	:	:

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages.
3/ Calculated from Columns 3 and 6; rounded to nearest unit.
4/ Total area zone A reduced by 92 acres urban and 14,582 acres already drained or not requiring drainage.

Basin: Bayou Meto
Project: Salt Bayou
Reach: LBM-2
State: Arkansas

SUMMARY - TABLE III A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production Per unit	(8) Total	(9) Cost of production Per Acre	(10) Total	(11) Net Return
All	Open land	14,630								
	Crops	13,167		3/				4/		
	Cotton	5,741	Lbs.Lint:	389	2,235,960	.25	558,990	103.66	595,097	90,673 5/
	Cottonseed	(5,741)	Ton	.3505	2,012.37	63.00	126,780	-	-	92,458 6/
	Corn	390	Bu.	46	17,940	1.45	26,013	38.64	15,070	10,943
	Rice	2,483	Cwt.	30	74,490	3.75	279,337	99.96	248,200	31,137
	Soybeans	2,835	Bu.	25	70,917	2.30	163,109	29.86	84,655	78,454
	Oats (Grain)	703	Bu.	29	20,340	.90	18,306	18.89	13,280	5,026
	Oats (Sup.Past)	(45)	Lbs.Beef:	70	3,150	.2005	632	5.37	242	390
	Grain Sorghum	313	Bu.	20	6,300	1.53	9,639	19.11	5,983	3,656
	Perm. Pasture	44	Lbs.Beef:	170	7,480	.2005	1,500	23.88	1,051	449
	Idle	658								
	Other	1,463								
	Woodland	1,392	Acres			6.57	9,145	3.59	4,998	4,147
	TOTAL	16,022					1,193,451		968,576	224,875 5/
		7/								226,660 6/

1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from Columns 3 and 6; rounded to nearest unit.
4/ Calculated from Columns 3 and 10; rounded to nearest cent.
5/ Includes calculated negative net return.
6/ Adjusted to eliminate negative net return.
7/ Total area zone A reduced by 92 acres urban, 1,072 acres woodland not anticipated to be cleared, and 20,156 already drained, not requiring drainage, or not anticipated to be drained.

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBM-2
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per acre	(6) Total	(7) Value of production: Per unit	(8) Total	(9) Cost of production: Per acre	(10) Total	(11) Net Return
All	Open land	16,022								
	Crops	14,420		3/				4/		
	Cotton	7,314	Lbs.Lint	687	5,021,265	.25	1,255,316	176.20	1,288,754	251,268
	Cottonseed	(7,314)	Ton	.6179	4,519.14	63.00	284,706	-	-	-
	Corn	405	Bu.	60	24,300	1.45	35,235	49.83	20,181	15,054
	Rice	2,092	Cwt.	35	73,220	3.75	274,575	111.17	232,568	42,007
	Soybeans	3,725	Bu.	27	101,827	2.30	234,202	31.71	118,118	116,084
	Oats (Grain)	55	Bu.	47	2,585	.90	2,326	28.61	1,574	752
	Oats (Sup.Past.)	(55)	Lbs.Beef	125	6,875	.2005	1,378	11.27	620	758
	Grain Sorghum	55	Bu.	28	1,540	1.53	2,356	23.99	1,319	1,037
	Perm. Pasture	55	Lbs.Beef	320	17,600	.2005	3,529	43.61	2,399	1,130
	Idle	719								
	Other 1/	1,602								
	Woodland	-	Acres							
	TOTAL	16,022 5/					2,093,623		1,665,533	428,090

1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages.
 3/ Calculated from Columns 3 and 6; rounded to nearest unit
 4/ Calculated from Columns 3 and 10; rounded to nearest cent
 5/ Total area zone A reduced by 92 acres urban, 1,072 acres woodland not anticipated to be cleared, and 20,156 acres already drained, not requiring drainage, or not anticipated to be drained.

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBM-2
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil :	Land use and crop :	2/ :		Production	
Unit :	distribution :	Acres :	Unit :	Per acre :	Total
All :	Open land :	8,652 :			
	Crops :	7,787 :		3/ :	
	Cotton :	2,478 :	Lbs.Lint :	275 :	680,875
	Cottonseed :	(2,473) :	Ton :	.2473 :	612.78
	Corn :	487 :	Bu. :	17 :	8,059
	Rice :	1,672 :	Cwt. :	30 :	59,160
	Soybeans :	915 :	Bu. :	18 :	16,332
	Oats (Grain) :	709 :	Bu. :	16 :	11,498
	Oats (Sup.Past.) :	(11) :	Lbs.Beef :	105 :	1,155
	Grain Sorghum :	407 :	Bu. :	16 :	6,512
	Perm. Pasture :	4 :	Lbs.Beef :	180 :	720
	Idle :	815 :			
	Other 1/ :	865 :			
Woodland :		6,998 :	Acres :		
	TOTAL :	15,650 :			
		4/ :			

- 1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
 4/ Total area zone B reduced by 101 acres watered area.

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBM-2
 State: Arkansas

SUMMARY - TABLE III B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	2/	Unit	Production	Value of production:	Cost of production:	Net			
Unit	distribution	Acres	Unit	Per acre	Total	Per unit	Total	Per acre	Total	Return
					Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
A11	Open land	8,789								
	Crops	7,910		3/				4/		
	Cotton	2,732	Lbs. Lint	319	870,695	.25	217,673	89.08	243,371	23,670
	Cottonseed	(2,732)	Ton	.2868	783.62	63.00	49,368	-	-	-
	Corn	398	Bu.	22	8,881	1.45	12,878	23.05	9,172	3,706
	Rice	1,580	Cwt.	30	47,400	3.75	177,750	99.96	157,937	19,813
	Soybeans	1,761	Bu.	19	33,618	2.30	77,321	25.11	44,212	33,109
	Oats (Grain)	569	Bu.	21	11,934	.90	10,741	15.19	8,644	2,097
	Grain Sorghum	475	Bu.	17	8,075	1.53	12,355	17.18	8,160	4,195
	Idle	395								
	Other	879								
	1/									
	Woodland	5,020	Acres			6.57	32,981	3.59	18,022	14,959
	TOTAL	13,809 5/					591,067		489,518	101,549

1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from Columns 3 and 6; rounded to nearest unit
 4/ Calculated from Columns 3 and 10; rounded to nearest cent
 5/ Total area zone B reduced by 101 acres watered, and 1,841 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBW-2
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Total	Value of production: Per unit	Total	Cost of production: Per acre	Total	Net Return
Unit	distribution			Per acre		Dollars	Dollars	Dollars	Dollars	Dollars
All	Open land	13,809								
	Crops	12,428		3/				4/		
	Cotton	5,253	Lbs. Lint	510	2,679,405	.25	669,851	138.92	729,766	92,007
	Cottonseed	(5,253)	Ton	.4591	2,411.46	63.00	151,922	-	-	-
	Corn	101	Bu.	61	6,133	1.45	8,893	54.03	5,457	3,436
	Rice	3,232	Cwt.	34	109,888	3.75	412,080	108.92	352,029	60,051
	Soybeans	3,128	Bu.	22	69,813	2.30	160,569	27.98	87,534	73,035
	Oats (Grain)	94	Bu.	46	4,324	.90	3,892	28.00	2,632	1,260
	Idle	620								
	Other	1,381								
	Woodland	-	Acres							
	TOTAL	13,809 5/					1,407,207		1,177,418	229,789
1/	Farmsteads, farm roads, waste and non-agricultural									
2/	Parentnetical amounts are duplicated acreages									
3/	Calculated from Columns 3 and 6; rounded to nearest unit									
4/	Calculated from Columns 3 and 10; rounded to nearest cent									
5/	Total area zone B reduced by 101 acres watered and 1,841 acres woodland not anticipated to be cleared.									

Basin:	Bayou Meto
Project:	Salt Bayou
Reach:	LBM-2
State:	Arkansas

TABLE II C
ZONE OF NO PROJECT BENEFIT
COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1)	:	(2)	:	(3)	:	(4)	:	(5)	:	(6)
Soil	:	Land use and crop	:		:		:	Production	:	
Unit	:	distribution	:	Acres	:	Unit	:	Per Acre	:	Total
1	1/	Open land	:	1,229	:		:		:	
		Crops	:	1,106	:		:		:	
		Corn	:	221	:	Bu.	:	12	:	2,652
		Soybeans	:	222	:	Bu.	:	14	:	3,108
		Grain Sorghum	:	221	:	Bu.	:	16	:	3,536
		Idle	:	442	:		:		:	
		Other 2/	:	123	:		:		:	
		Woodland	:	367	:	Acres	:		:	
		TOTAL	:	1,596 3/	:		:		:	
1/	One soil only; no summary required									
2/	Farm roads, waste and non-agricultural									
3/	Total area zone C reduced by 631 acres dedicated to wood- land and 3,300 acres woodland not anticipated to be cleared.									

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: IBM-2
 State: Arkansas

TABLE III C 1/
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop:			Production			Value of production:	Cost of production:			Net
Unit: distribution	Acres	Unit	Per acre	Total	Per unit:	Total	Per acre	Total	Return	
1 2/ Open land	1,596									
: Crops	1,436									
: Corn	287	Bu.	13	3,731	1.45	5,410	16.96	4,868	542	
: Soybeans	288	Bu.	15	4,320	2.30	9,936	21.82	6,284	3,652	
: Grain Sorghum	287	Bu.	17	4,879	1.53	7,465	17.18	4,931	2,534	
: Idle	574									
: Other 3/	160									
: Woodland	-	Acres								
: TOTAL	1,596 4/					22,811		16,083	6,728	
1/ Data same for both "future with" and "future without" project conditions; no table IV C required.										
2/ One soil only; no summary required.										
3/ Farm roads, waste and non-agricultural										
4/ Total area Zone C reduced by 631 acres dedicated to woodland and 3,300 acres woodland not anticipated to be cleared.										

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBM-2
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1) Soil Mapping Unit	(2) Acres	(3) Future without project (Production in Dollars)	(4) Cost	(5) Net	(6) Future with project (Production in Dollars)	(7) Cost	(8) Net	(10) Difference in Net Production
1	5,811	326,016	290,198	ZONE A - (not subject to flooding)	665,649	566,089	99,560	61,957
2	1,213	80,947	67,902	37,603 1/2	155,571	121,812	33,759	20,714
4	8,998	786,488	610,476	176,012	1,272,403	977,632	294,771	118,759
Subtotal	16,022 2/	1,193,451	968,576	226,660	2,093,623	1,665,533	428,090	201,430
1	13,217	409,411	346,774	ZONES B & C - (subject to flooding)	1,158,746	978,832	179,914	117,277
4	2,097	191,782	148,797	62,637	258,587	204,639	53,948	10,963
11	91	12,685	10,030	2,655	12,685	10,030	2,655	-
Subtotal	15,405 3/	613,878	505,601	108,277	1,430,018	1,193,501	236,517	128,240
TOTAL	31,427	1,807,329	1,474,177	334,937	3,523,641	2,859,034	664,607	329,670

- 1/ Adjusted to eliminate negative net return.
- 2/ Total area zone A reduced by 92 acres urban, 1,072 acres woodland not anticipated to be cleared, and 20,156 acres already drained, not requiring drainage, or not anticipated to be drained.
- 3/ Total area zones B & C reduced by 101 acres watered, 631 acres dedicated to woodland, and 5,141 acres not anticipated to be cleared.

Basin:	Bayou Meto
Project:	Salt Bayou
Reach:	LBM-2
State:	Arkansas

TABLE VI
LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion 1/	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	Acres	Dollars	Dollars	Dollars
Per Acre				
W to GC	xx	60	10	xx
W to IC	xx	60	10	xx
W to P	xx	60	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	4,451	267,060	44,510	311,570
W to IC	1,950	117,000	19,500	136,500
W to P	11	660	xx	660
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	384,720	64,010	448,730
Annual amortized value 2/	xx	xx	xx	24,581
Total annual cost of conversions	xx	xx	xx	24,581

1/ W-woodland; GC- general dry-farmed crops; IC- irrigated crops; (rice); P-pasture.

2/ Amortized over 50 years at 5 percent

Basin: Bayou Meto
 Project: Salt Bayou
 Reach: LBM-2
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area	Total		Annual		Annual		Total	
			Cost	Installation 1/	Equivalent Instl. Cost 2/	Maintenance	Cost	Annual	Cost	Annual
A	1 -General crops	3,138	54,297		7,031	6,265		13,296		
	1 -Rice	2,092	18,058		2,339	695		3,034		
	2 -General crops	1,037	15,557		2,015	1,795		3,810		
	2 -Pasture	55	512		66	12		78		
	4 -General crops	8,098	107,696		13,947	12,426		26,373		
	Subtotal	14,420 _{3/}	196,120		25,398	21,193		46,591		
B	1 -General crops	5,028	87,000		11,266	10,038		21,304		
	1 -Rice	2,169	18,722		2,424	720		3,144		
	4 -General crops	1,217	16,185		2,096	1,867		3,963		
	4 -Rice	64	552		71	21		92		
	Subtotal	8,478 _{3/}	122,459		15,857	12,646		28,503		
	TOTAL	22,898 _{3/}	318,579		41,255	33,839		75,094		

1/ Includes engineering and contingency
 2/ Amortized at 5 percent over 10 years
 3/ Does not include 10 percent "other" land

Basin:	Bayou Meto
Project:	Salt Bayou
Reach:	LBM-2
State:	Arkansas

TABLE VIII
ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic yard	999,400	0.19	189,886
Right-of-way easements	Acres	405	25.00	10,125
Crossings	Each	47	350.00	16,450
Swinging water gaps	Each	45	50.00	2,250
Pipe drop structures	Each	60	150.00	9,000
Flap gates	Each	20	100.00	2,000
Vegetative plantings	Acres	135	8.00	1,080
Total construction cost:	xx	xx	xx	230,791
Engineering cost	xx	xx	xx	23,079
Contingencies and legal:	xx	xx	xx	23,079
Total installation cost				276,949
Annual equivalent - installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				19,486
Annual maintenance cost				11,540
Annual loss of production - right-of-way <u>2/</u>				1,541
Total annual cost of required group facilities				32,567

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production - right-of-way. 162 acres @ \$9.51 per acre.

Basin:	<u>Bayou Meto</u>
Project:	<u>Salt Bayou</u>
Reach:	<u>LBM-2</u>
State:	<u>Arkansas</u>

TABLE IX
SUMMARY OF ANNUAL NET PRODUCTION RETURNS
AND ASSOCIATED COSTS

(1)	:	(2)	:	(3)
Item	:	Total	:	Discounted
	:	Dollars	:	Amount
	:		:	Dollars
1. Net return with project	:	664,607	:	xx
2. Net return without project	:	334,937	:	xx
3. Gross benefit to project	:	329,670	:	182,294 <u>2/</u>
4. Farm drainage cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	41,255	:	xx
b. Maintenance cost	:	33,839	:	xx
c. Total	:	75,094	:	41,524
5. Group drainage cost	:	xx	:	xx <u>3/</u>
a. Installation cost	:	19,486	:	xx
b. Maintenance cost <u>1/</u>	:	13,081	:	xx
c. Total	:	32,567	:	24,423
6. Conversion cost	:	xx	:	xx <u>2/</u>
a. Installation cost	:	24,581	:	xx
b. Maintenance cost	:	-	:	xx
c. Total	:	24,581	:	13,592
<u>1/</u> Includes loss of production, right-of-way				
<u>2/</u> Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.				
<u>3/</u> Discounted at $3\frac{1}{2}$ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.				

BASIN : BAYOU METO

PROJECT: LITTLE BAYOU METO

REACH : LBM-3

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil Mapping Unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Game Preserve (Acres)	Total (Acres)
Zone A	1	1,341	613	-	-	-	1,954
	2	6,478	85	-	-	-	6,563
	4	2,763	26	-	-	-	2,789
	11	3,592	9	-	-	-	3,601
	12	645	-	-	-	-	645
Subtotal - all soils		14,819	733	-	-	-	15,552
Urban		-	-	-	-	-	-
Watered		-	-	-	27	-	27
Game Preserve		-	-	-	-	807	807
Total - Zone A		14,819	733	-	27	807	16,386
Zone B	1	813	8,185	-	-	-	8,998
	2	850	317	-	-	-	1,167
	4	281	-	-	-	-	281
	6	11	-	-	-	-	11
	11	103	70	-	-	-	173
Subtotal - all soils		2,058	8,572	-	-	-	10,630
Urban		-	-	-	-	-	-
Watered		-	-	-	137	-	137
Game Preserve		-	-	-	-	5,160	5,160
Total - Zone B		2,058	8,572	-	137	5,160	15,927
Zone C	1	320	4,400	-	-	-	4,720
	2	44	81	-	-	-	125
	4	1,225	72	-	-	-	1,297
Subtotal - all soils		1,589	4,553	-	-	-	6,142
Urban		-	-	-	-	-	-
Watered		-	-	-	140	-	140
Game Preserve		-	-	-	-	21,486	21,486
Total - Zone C		1,589	4,553	-	140	21,486	27,768
GRAND TOTAL- Reach LBM-3		18,466	13,858	-	304	27,453	60,081

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	9,927			
	Crops	8,934			
	Cotton	4,243	Lbs. Lint	354 <u>3/</u>	1,501,960
	Cottonseed	(4,243)	Ton	.3186	1,351.76
	Rice	2,498	Cwt.	30	74,940
	Soybeans	1,234	Bu.	18	22,361
	Oats (Grain)	178	Bu.	30	5,340
	Perm. Pasture	277	Lbs. Beef	145	40,165
	Idle	504			
	Other <u>1/</u>	993			
	Woodland	724	Acres		
	TOTAL	10,651 <u>4/</u>			

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from columns 3 and 6; rounded to nearest unit
4/ Total area zone A reduced by 27 acres water, 807 acres public shooting ground, and 4,901 acres already drained or not requiring drainage.

Basin: Bayou Meto
Project: Little Bayou Meto
Reach: IBM-3
State: Arkansas

SUMMARY - TABLE III A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION COSTS,
AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Cost of production: Per Acre	Net Return		
All	Open Land	7,300								
	Crops	6,570								
	Cotton	3,132	Lbs. lint	394 ^{3/}	1,233,900	.25	308,475	103.58	324,721	53,717.5
	Cottonseed	(3,132)	Ton	.3546	1,110.51	63.00	69,963			53,836.6
	Rice	1,860	Cwt.	30	55,800	3.75	209,250	99.96	185,926	23,324
	Soybeans	999	Bu.	24	24,027	2.30	55,261	29.02	28,996	26,265
	Perm. Pasture	211	Lbs. Beef	170	35,870	.2005	7,192	23.88	5,039	2,153
	Idle	368								
	Other ^{1/}	730								
	Woodland	218	Acres			7.00	1,526	4.41	961	565
	TOTAL	7,518 ^{7/}					651,667		545,643	106,624.5

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Includes calculated negative net return
- 6/ Adjusted to eliminate negative net return
- 7/ Total area zone A reduced by 27 acres water, 807 acres public shooting grounds, 506 acres not anticipated to be cleared, and 7,528 acres already drained, not anticipated to be drained or not needing drainage.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: IBM-3
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Per Acre	Total	Value of production	Cost of production	Net	
Unit	distribution						Per Unit	Total	Per Acre	Total
							Dollars	Dollars	Dollars	Dollars
ALL	Open land	7,518								
	Crops	6,766								
	Cotton	4,197	Lbs. lint	627 ^{3/}	2,632,795	63.00	658,198	162.38	4/	681,510
	Cottonseed	(4,197)	Ton	564.6	2,369,511	3.75	149,279	111.17		125,967
	Rice	1,144	Cwt.	35	40,040	150	149	127,178		22,971
	Soybeans	877	Bu.	27	23,805	2.30	54,751	31.51		27,121
	Perm. Pasture	211	Lbs. Beef	320	67,520	2005	13,538	43.61		9,202
	Idle	337								4,336
	Other <u>1/</u>	752								
	Woodland		Acres							
	TOTAL	7,518					1,025,915	845,520		180,395

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area A reduced by 27 acres water, 807 acres public shooting ground, 506 acres woodland not anticipated to be cleared, and 7,528 acres already drained, not anticipated to be drained, or not needing drainage.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil Unit	Land use and crop distribution	<u>2/</u> Acres	Production Unit	Per Acre	Total
All	Open land	2,058			
	Crops	1,853		<u>3/</u>	
	Cotton	512	Lbs.Lint	339	173,470
	Cottonseed	(512)	Ton	.3049	156.12
	Corn	55	Bu.	23	1,238
	Rice	98	Cwt.	30	2,940
	Soybeans	641	Bu.	17	11,022
	Oats (Grain)	185	Bu.	22	4,106
	Oats (Sup.Past.)	(76)	Lbs.Beef	75	5,700
	Perm. Pasture	138	Lbs.Beef	145	20,010
	Idle	224			
	Other <u>1/</u>	205			
	Woodland	7,952	Acres		
	TOTAL	<u>10,010</u> <u>4/</u>			

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from columns 3 and 6; rounded to nearest unit
4/ Total area zone B reduced by 137 acres water, 5,160 acres public shooting ground, and 620 acres dedicated to woodland.

Basin: Bayou Meto
Project: Little Bayou Meto
Reach: IBM-3
State: Arkansas

SUMMARY - TABLE III B
ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Return
						Dollars	Dollars	Dollars	Dollars	Dollars
All	Open land	2,452		3/				4/		
	Crops	2,207								
	Cotton	928	Lbs. lint	349	323,890	.25	80,972	94.66	87,849	11,488
	Cottonseed	(928)	Ton	3441	291.50	63.00	18,365			
	Corn	18	Bu.	47	846	1.45	1,227	39.57	712	515
	Rice	113	Cwt.	30						
	Soybeans	799	Bu.	20	3,390	3.75	12,712	99.96	11,295	1,417
	Oats (Grain)	93	Bu.	23	15,891	2.30	36,550	25.76	20,561	15,969
	Oats (Sup. Past.)	(39)	Lbs. Beef	75	2,157	.90	1,941	16.13	1,500	441
	Perm. Pasture	78	Lbs. Beef	180	2,925	.2005	586	5.91	230	356
	Idle	178			14,040	.2005	2,815	25.41	1,982	833
	Other 1/	245								
	Woodland	5,121	Acres			7.00	35,847	4.41	22,584	13,263
	TOTAL	7,573	5/				191,015		146,733	44,282

1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ Calculated from columns 3 and 6; rounded to nearest unit
4/ Calculated from columns 3 and 10; rounded to nearest cent
5/ Total area zone B reduced by 137 acres water, 620 acres dedicated to woodland, 5,160 acres public shooting grounds, and 2,437 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
						Dollars	Dollars	Dollars	Dollars	Dollars
All	Open land	7,573								
	Crops	6,816								
	Cotton	3,840	Lbs. lint	459 3/4	1,762,465	.25	440,616	122.34	469,797	70,751
	Cottonseed	(3,840)	Ton	41.31	1,586.22	63.00	99,932			
	Rice	267	Cwt.	34	9,078	3.75	34,042	108.92	29,082	4,960
	Soybeans	1,959	Bu.	22	43,027	2.30	98,962	27.68	54,223	44,739
	Oats (Grain)	323	Bu.	33	10,809	.90	9,728	21.01	6,786	2,942
	Oats (Sup. Past.)	(43)	Lbs. Beef	110	4,730	.2005	948	9.66	415	533
	Perm. Pasture	86	Lbs. Beef	285	24,510	.2005	4,914	39.32	3,382	1,532
	Idle	341								
	Other 1/	757								
	Woodland	-	Acres							
	TOTAL	7,573 5/					689,142		563,685	125,457

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 137 acres water, 620 acres dedicated to woodland, 5,160 acres public shooting grounds, and 2,437 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

SUMMARY - TABLE II C
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop			Production	
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	1,589			
	Crops	1,431		2/	
	Corn	286	Bu.	34	9,592
	Soybeans	541	Bu.	20	10,675
	Grain Sorghum	286	Bu.	19	5,456
	Idle	318			
	Other 1/	158			
	Woodland	535	Acres		
	TOTAL	2,124 3/			

1/ Farm roads, waste and non-agricultural

2/ Calculated from columns 3 and 6; rounded to nearest unit

3/ Total area zone C reduced by 140 acres watered, 21,486 acres game refuge, 915 acres dedicated to woodland, and 3,103 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: IBN-3
 State: Arkansas

SUMMARY - TABLE III C 1/
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acre	Unit	Production Per Acre	Total	Value of production: Per Unit	Cost of production: Per Acre	Net Return		
						Dollars	Dollars	Dollars	Dollars	Dollars
ALL	Open land	2,124								
	Crops	1,912								
	Corn	381	Bu.	32 <u>3/</u>	12,213	1.45	17,709	29.48 <u>4/</u>	11,232	6,477
	Soybeans	666	Bu.	24	16,492	2.30	37,931	29.08	19,948	17,983
	Grain Sorghum	382	Bu.	22	8,254	1.53	12,629	20.03	7,652	4,977
	Idle	463								
	Other <u>2/</u>	212								
	Woodland	-	Acre							
	TOTAL	2,124 <u>5/</u>					68,269		38,832	29,437

- 1/ Data same for both "without project" and "with project" conditions; no Table IV C required.
2/ Farm roads, waste and non-agricultural.
3/ Calculated from columns 3 and 6; rounded to nearest unit
4/ Calculated from columns 3 and 10; rounded to nearest cent.
5/ Total area zone C reduced by 140 acres water, 21,486 acres public shooting ground, 915 acres dedicated to woodland, and 3,103 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: IBM-3
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil	Unit	Acres	Gross	Cost	Net	Gross	Cost	Net
			Future Without Project (Production in Dollars)		Future With Project (Production in Dollars)		Difference in Net Production	
ZONE A - (not subject to flooding)								
1	:	1,117	:	54,585	:	45,981	:	8,723 1/2
2	:	4,680	:	431,566	:	370,229	:	61,337
4	:	1,721	:	165,516	:	129,433	:	36,083
Subtotal	:	7,518 2/	:	651,667	:	545,643	:	106,143
ZONES B & C- (subject to flooding)								
1	:	7,121	:	100,772	:	74,278	:	26,494
2	:	956	:	68,304	:	54,363	:	13,941
4	:	1,620	:	90,208	:	56,924	:	33,284
Subtotal	:	9,697 3/	:	259,284	:	185,565	:	73,719
TOTAL	:	17,215	:	910,951	:	731,208	:	179,862
			:	:	:	1,783,326	:	1,448,037
			:	:	:	335,289	:	155,427

- 1/ Adjusted to eliminate negative net return
- 2/ Total area Zone A reduced by 27 acres water, 807 acres public shooting ground, 506 acres not to be cleared, and 7,528 acres already drained, not requiring drainage or not to be drained.
- 3/ Total area Zones B & C reduced by 277 acres water, 1,535 acres dedicated woodland, 26,646 acres public shooting ground, and 5,540 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

TABLE VI
 LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion ^{1/}	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	Acres	Dollars	Dollars	Dollars
Per Acre				
W to GC	xx	60	10	xx
W to IC	xx	60	10	xx
W to P	xx	60	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	5,150	309,000	51,500	360,500
W to IC	181	10,860	1,810	12,670
W to P	8	480	xx	480
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	320,340	53,310	373,650
Annual amortized value ^{2/}	xx	xx	xx	20,469
Total annual cost of conversions	xx	xx	xx	20,469

^{1/} W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture

^{2/} Amortized over 50 years at 5 percent

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: IBM-3
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil Mapping Unit and Land Use	Area Acres	Total Cost	Annual Equivalent Instl. Cost 1/	Annual Maintenance Cost 2/	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crop	703	12,164	1,575	1,404	2,979
	1 - Rice	302	2,606	337	100	437
	2 - General crops	3,159	47,391	6,137	5,468	11,605
	2 - Rice	842	7,268	941	280	1,221
	2 - Pasture	211	1,964	254	45	299
	4 - General crops	1,549	20,600	2,668	2,377	5,045
B	Subtotal	6,766 3/	91,993	11,912	9,674	21,586
	1 - General crops	3,705	64,108	8,302	7,397	15,699
	1 - Rice	155	1,338	173	51	224
	2 - General crops	514	7,711	999	890	1,889
	2 - Rice	28	242	31	9	40
	2 - Pasture	60	559	72	13	85
	4 - General crops	236	3,138	406	362	768
	Subtotal	4,698 3/	77,096	9,983	8,722	18,705
	Total	11,464 3/	169,089	21,895	18,396	40,291

1/ Includes engineering and contingency
 2/ Amortized over 10 years at 5 percent
 3/ Does not include 10 percent "other" land

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM-3
 State: Arkansas

TABLE VIII
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	: Unit	: Amount	: Unit Cost	: Total Cost
			: Dollars	: Dollars
Excavation <u>1/</u>	:	:	:	:
Shaping or spreading spoil <u>1/</u>	:	:	:	:
Clearing right-of-way <u>1/</u>	:Cubic Yard:	183,750	: 0.20:	36,750
Right-of-way easements	: Acres	: 72	: 25.00:	1,800
Crossings	: Each	: 15	: 250.00:	3,750
Swinging water gaps	: Each	: 9	: 50.00:	450
Pipe drop structures	: Each	: 19	: 150.00:	2,850
Flap gates	: Each	: 15	: 100.00:	1,500
Vegetative plantings	: Acres	: 28	: 8.00:	224
Total construction cost	: xx	: xx	: xx	: 47,324
Engineering cost	: xx	: xx	: xx	: 4,732
Contingencies and legal	: xx	: xx	: xx	: 4,732
Total installation cost				: 56,788
Annual equivalent - installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				: 3,996
Annual maintenance cost				: 2,366
Annual loss of production - right-of-way <u>2/</u>				: 390
Total annual cost of required group facilities				: 6,752

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production - right-of-way. 43 acres @ \$9.08 per acre.

Basin: Bayou Meto
 Project: Little Bayou Meto
 Reach: LBM- 3
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	:Discounted
	Dollars	: Amount
		Dollars
1. Net return with project	: 335,289	: xx
2. Net return without project	: 179,862	: xx
3. Gross benefit to project	: 155,427	: 85,945 2/
4. Farm drainage cost	: xx	: xx 2/
a. Installation cost	: 21,895	: xx
b. Maintenance cost	: 18,396	: xx
c. Total	: 40,291	: 22,279
5. Group drainage cost	: xx	: xx 3/
a. Installation cost	: 3,996	: xx
b. Maintenance cost 1/	: 2,756	: xx
c. Total	: 6,752	: 5,063
6. Conversion cost	: xx	: xx 2/
a. Installation cost	: 20,469	: xx
b. Maintenance cost	: -	: xx
c. Total	: 20,469	: 11,319

- 1/ Includes loss of production, right-of-way
 2/ Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.
 3/ Discounted at 3½ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.

BASIN: BAYOU METO

PROJECT: INDIAN BAYOU

REACH: W--1

STATE: ARKANSAS

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: W-1
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	: Soil map- : ping unit	: Open : (Acres)	: Wooded : (Acres)	: Total : (Acres)
Zone A	: 1	: 6,203	: 7,243	: 13,446
	: 2	: 6,206	: 1,462	: 7,668
	: 2SU	: 706	: 153	: 859
	: 4	: 10,018	: 1,715	: 11,733
	: 6	: 10	: 197	: 207
	: 11	: 8,415	: 133	: 8,548
	: 11SU	: 1,882	: 272	: 2,154
	:	:	:	:
Subtotal - all soils	:	: 33,440	: 11,175	: 44,615
	:	:	:	:
GRAND TOTAL- Reach W-1	:	: 33,440	: 11,175	: 44,615
	:	:	:	:

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: W-1
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop:	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	22,715			
	Crops	20,444		3/	
	Cotton	3,918	Lbs. Lint	343	1,343,920
	Cottonseed	(3,918)	Ton	3087	1,209,54
	Corn	666	Bu.	31	20,396
	Rice	3,741	Cwt.	30	112,230
	Soybeans	4,252	Bu.	19	79,624
	Oats (Grain)	2,760	Bu.	21	57,370
	Oats (Sup. Past.)	(383)	Lbs. Beef	70	26,810
	Grain Sorghum	1,645	Bu.	20	33,613
	Perm. Pasture	1,991	Lbs. Beef	165	329,050
	Idle	1,471			
	Other <u>1/</u>	2,271			
	Woodland	10,770	Acres		
	TOTAL	33,485 <u>4/</u>			

1/ Farmsteads, farm roads, waste and non-agricultural

2/ Parenthetical amounts are duplicated acreages

3/ Calculated from Columns 3 and 6; rounded to nearest unit

4/ Total area Zone A reduced by 10,702 acres not requiring drainage, and 428 acres already drained.

Basin: Bayou Meto
Project: Indian Bayou
Reach: W-1
State: Arkansas

SUMMARY - TABLE III A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production Per Unit	Total	Cost of production Per Acre	Total	Net Return
ALL	Open land	17,607		3/				4/		
	Crops	15,846								
	Cotton	6,942	Lbs. lint	394	2,737,305	.25	684,326	104.50	725,470	115,713 5/
	Cottonseed	(6,942)	Ton	35488	2,463,58	63.00	155,206			114,062 6/
	Corn	529	Bu.	35	18,460	1.45	26,767	31.35	16,584	10,183
	Rice	3,123	Cwt.	30	93,690	3.75	351,337	99.96	312,175	39,162
	Soybeans	1,803	Bu.	25	44,827	2.30	103,102	29.63	53,431	49,671
	Oats (Grain)	703	Bu.	21	14,500	.90	13,050	15.07	10,592	2,458
	Oats (Sup.Past.)	(47)	Lbs.Beef	88	4,130	.2005	828	7.30	343	485
	Grain Sorghum	417	Bu.	22	9,234	1.53	14,128	20.36	8,492	5,636
	Perm. Pasture	1,291	Lbs.Beef	212	273,395	.2005	54,815	29.94	38,647	16,168
	Idle	1,038								
	Other 1/	1,761								
	Woodland	4,664	Acre			5.57	25,978	3.60	16,791	9,187
	TOTAL	22,271 7/					1,429,537		1,182,525	248,663 5/
										247,012 6/

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
- 5/ Adjusted to eliminate negative net return
- 6/ Includes calculated negative net return on soil unit 1.
- 7/ Total project acreage Zone A reduced by 22,344 acres of land not anticipated to receive drainage benefits from project.

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: M-1
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production Per Unit	(8) Total	(9) Cost of production Per Acre	(10) Total	(11) Net Return
ALL	Open land	22,271								
	Crops	20,044								
	Cotton	9,964	Lbs. Lint:	2/744	7,414,050	25	1,853,512	4/188	861,881	392,106
	Cottonseed	(9,964)	Ton	66967	6,672.65	63.00	420,376			
	Corn	283	Bu.	34	9,622	1.45	13,952	28.46	8,054	5,898
	Rice	4,567	Cwt.	35	159,845	3.75	599,419	111.17	507,714	91,705
	Soybeans	1,650	Bu.	27	44,785	2.30	103,005	31.49	51,951	51,054
	Oats (Grain)	273	Bu.	47	12,729	.90	11,457	28.39	7,750	3,707
	Oats (Sup. Past.)	(73)	Lbs. Beef:	139	10,145	.2005	2,034	12.78	933	1,101
	Grain Sorghum	647	Bu.	25	16,416	1.53	25,116	22.36	14,468	10,648
	Perm. Pasture	1,279	Lbs. Beef:	364	465,425	.2005	93,318	48.27	62,637	30,681
	Idle	1,381								
	Other 1/	2,227								
	Woodland	-	Acres							
	TOTAL	22,271 5/					3,122,189		2,535,289	586,900

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent
- 5/ Total project acreage of Zone A reduced by 22,344 acres of land not anticipated to receive drainage benefits from project.

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: W-1
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil		Future Without Project (Production in Dollars)	Cost	Net	Future With Project (Production in Dollars)	Cost	Net	Difference in Net Production
Unit	Acres	Gross	Cost	Net	Gross	Cost	Net	Production
ZONE A - (not subject to flooding)								
1	7,869	302,029	269,314	34,366 1/2	902,912	771,809	131,103	96,737 1/2
2	4,939	335,024	272,877	62,147	645,402	521,489	123,913	61,766
2SU	571	27,835	20,374	7,461	38,497	28,030	10,467	3,006
4	8,892	764,649	619,960	144,689	1,535,378	1,213,961	321,417	176,728
TOTAL	22,271 2/3	1,429,537	1,182,525	248,663	3,122,189	2,535,289	586,900	338,237

1/ Adjusted to eliminate negative net return
 2/ Total area Zone A reduced by 22,344 acres not anticipated to benefit by the project.

Basin: Bayou Meto

Project: Indian Bayou

Reach: W-1

State: Arkansas

TABLE VI
LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion ^{1/}	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
<u>Per Acre</u>	:	:	:	:
W to GC	: xx	: 50:	: 5	: xx
W to IC	: xx	: 50:	: 5	: xx
W to P	: xx	: 50:	: xx	: xx
P to GC	: xx	: xx:	: -	: xx
P to IC	: xx	: xx:	: -	: xx
GC to IC	: xx	: xx:	: xx	: xx
GC to P	: xx	: xx:	: xx	: xx
	:	:	:	:
<u>Project</u>	:	:	:	:
W to GC	: 3,102	: 155,100:	: 15,510	: 170,610
W to IC	: 1,444	: 72,200:	: 7,220	: 79,420
W to P	: 118	: 5,900:	: xx	: 5,900
P to GC	: 130	: xx:	: -	: -
P to IC	: -	: xx:	: -	: -
GC to IC	: -	: xx:	: xx	: -
GC to P	: -	: xx:	: xx	: -
	:	:	:	:
Total project	: xx	: 233,200:	: 22,730	: 255,930
	:	:	:	:
Annual amortized value ^{2/}	: xx	: xx:	: xx	: 14,020
	:	:	:	:
Total annual cost of conversions	: xx	: xx:	: xx	: 14,020
	:	:	:	:

^{1/} W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture.

^{2/} Amortized over 50 years at 5 percent

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: W-1
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation ^{1/}	Annual Equivalent Instl. Cost ^{2/}	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	4,249	73,520	9,521	8,483	18,004
	1 - Rice	2,833	24,454	3,167	941	4,108
	2 - General crops	2,889	43,341	5,613	5,001	10,614
	2 - Rice	1,334	11,516	1,491	443	1,934
	2 - Pasture	222	2,067	268	48	316
	2SU - General crops	257	3,856	499	445	944
	2SU - Pasture	257	2,392	310	55	365
	4 - General crops	6,803	90,473	11,716	10,439	22,155
	4 - Rice	400	3,453	447	133	580
	4 - Pasture	800	6,511	843	150	993
	TOTAL	20,044 ^{3/}	261,583	33,875	26,138	60,013

^{1/} Includes engineering and contingency
^{2/} Amortized over 10 years at 5 percent
^{3/} Does not include 10 percent "other" land.

Basin: Bayou Meto

Project: Indian Bayou

Reach: W-1

State: Arkansas

TABLE VIII
ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Shaping or spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic Yard	768,500	0.20	153,700
Right-of-way easements	Acre	312	20.00	6,240
Crossings	Each	41	300.00	12,300
Swinging water gaps	Each	21	60.00	1,260
Pipe drop structures	Each	70	80.00	5,600
Flap gates	-	-	-	-
Vegetative plantings	Acre	90	8.00	720
Total construction cost	xx	xx	xx	179,820
Engineering cost	xx	xx	xx	17,982
Contingencies and legal	xx	xx	xx	17,982
Total installation cost				215,784
Annual equivalent - installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				15,183
Annual maintenance cost				8,991
Annual loss of income, right-of-way <u>2/</u>				1,327
Total annual cost of required group facilities				25,501

1/ Unit price includes all three items under normal contract procedure.

2/ Annual loss of production-right-of-way. 94 acres @ \$14.12 per acre.

Basin: Bayou Meto
 Project: Indian Bayou
 Reach: W-1
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Dollars
1. Net return with project	586,900	xx
2. Net return without project	248,663	xx
3. Gross benefit to project	338,237	210,120 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	33,875	xx
b. Maintenance cost	26,138	xx
c. Total	60,013	37,281
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	15,183	xx
b. Maintenance cost <u>1/</u>	10,318	xx
c. Total	25,501	21,176
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	14,020	xx
b. Maintenance cost	-	xx
c. Total	14,020	8,710

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 20 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at 3½ percent to account for estimated 10 year lag to full installation, maintenance, and benefit accrual.

BASIN : BAYOU METO

PROJECT: WABBASEKA BAYOU

REACH : W-2

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Total (Acres)
Zone A	1	5,601	1,337	-	-	6,938
	2	2,361	390	-	-	2,751
	4	11,621	400	-	-	12,021
	11	3,258	337	-	-	3,595
Subtotal - all soils		22,841	2,464	-	-	25,305
Urban		-	-	403	-	403
Watered		-	-	-	-	-
Total - Zone A		22,841	2,464	403	-	25,708
Zone B	1	2,639	670	-	-	3,309
	2	708	-	-	-	708
	4	638	201	-	-	839
	11	195	70	-	-	265
Subtotal - all soils		4,180	941	-	-	5,121
Urban		-	-	-	-	-
Watered		-	-	-	-	-
Total - Zone B		4,180	941	-	-	5,121
GRAND TOTAL - Reach W-2		27,021	3,405	403	-	30,829

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	2/	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	18,216			
	Crops	16,395		3/	
	Cotton	7,383	Lbs. Lint	317	2,337,390
	Cottonseed	(7,383)	Ton	2849	2,103.65
	Corn	866	Bu.	40	34,640
	Rice	1,144	Cwt.	30	34,320
	Soybeans	3,550	Bu.	20	70,203
	Oats (Grain)	1,202	Bu.	24	28,435
	Oats (Sup. Past.)	(702)	Lbs. Beef	70	49,140
	Grain Sorghum	195	Bu.	23	4,485
	Perm. Pasture	1,305	Lbs. Beef	168	219,535
	Idle	750			
	Other 1/	1,821			
	Woodland	2,127	Acres		
	TOTAL	20,343 4/			

- 1/ Farmsteads, farm roads, waste and non-agricultural
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from columns 3 and 6; rounded to nearest unit
 4/ Total area zone A reduced by 403 acres urban and 4,962 acres lands already drained or not requiring drainage.

Basin: Bayou Meto
Project: Wabbaseka Bayou
Reach: W-2
State: Arkansas

SUMMARY - TABLE III A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION, PRODUCTION
COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Value of production	Cost of production	Net			
Unit	distribution			Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
ALL	Open land	12,484								
	Crops	11,236								
	Cotton	5,543	Lbs.	373	2,068,460	.25	517,115	100.29	555,914	78,483 5/
	Cottonseed	(5,543)	Ton	.3358	1,861.61	63.00	117,282			80,788 2/
	Corn	624	Bu.	46	28,704	1.45	41,621	38.64	24,111	17,510
	Rice	729	Cwt.	30	21,870	3.75	82,012	99.96	72,871	9,141
	Soybeans	2,625	Bu.	26	68,359	2.30	157,225	30.65	80,455	76,770
	Oats (Grain)	237	Bu.	21	4,887	.90	4,399	15.02	3,560	839
	Oats (Sup. Past)	(78)	Lbs.Beef	70	5,460	.2005	1,095	5.37	419	676
	Grain Sorghum	56	Bu.	28	1,568	1.53	2,399	23.99	1,343	1,056
	Perm. Pasture	903	Lbs.Beef	211	190,725	.2005	38,240	29.74	26,856	11,384
	Idle	519								
	Other 1/	1,248								
	Woodland	975	Acres			5.08	4,953	2.52	2,457	2,496
	TOTAL	13,459 7/					966,341		767,986	198,355 5/
										200,660 6/

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Includes calculated negative net return
- 6/ Adjusted to eliminate negative net return
- 7/ Total area zone A reduced by 403 acres urban, 1,152 acres woodland not anticipated to be cleared, and 10,694 acres already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Unit	Land use and crop distribution	Acre	Unit	Production Per Acre	Total	Value of production Per Unit	Total	Cost of production Per Acre	Total	Net Return
All	Open land	13,459								
	Crops	12,112								
	Cotton	6,891	Lbs. Lint	672 3/4	4,631,455	.25	1,157,863	173.03 4/4	1,192,372	228,094
	Cottonseed	(6,891)	Ton	6049	4,168.31	63.00	262,603			
	Rice	689	Cwt.	35	24,115	3.75	90,431	111.17		13,834
	Soybeans	2,762	Bu.	27	75,872	2.30	174,506	31.80	87,843	86,663
	Oats (Grain)	250	Bu.	41	10,254	.90	9,229	24.97	6,243	2,986
	Oats (Sup. Past.)	(250)	Lbs. Beef	84	20,965	.2005	4,204	6.86	1,714	2,490
	Perm. Pasture	964	Lbs. Beef	360	347,235	.2005	69,620	48.52	46,775	22,845
	Idle	556								
	Other 1/	1,347								
	Woodland	-	Acre							
	TOTAL	13,459 5/8					1,768,156		1,411,544	356,912

- 1/ Farmssteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone A reduced by 403 acres urban, 1,152 acres woodland not anticipated to be cleared, and 10,694 acres already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

SUMMARY - TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	2/	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	4,180			
	Crops	3,762		3/	
	Cotton	1,460	Lbs.Lint	288	420,090
	Cottonseed	(1,460)	Ton	.2590	378.07
	Corn	45	Bu.	38	1,720
	Rice	521	Cwt.	30	15,630
	Soybeans	826	Bu.	16	13,412
	Oats (Grain)	239	Bu.	23	5,398
	Oats (Sup. Past.)	(45)	Lbs.Beef	70	3,150
	Grain Sorghum	165	Bu.	19	3,130
	Perm. Pasture	207	Lbs.Beef	151	31,160
	Idle	299			
	Other 1/	418			
	Woodland	941	Acres		
	TOTAL	5,121			

- 1/ Farmsteads, farm roads, waste and non-agricultural.
 2/ Parenthetical amounts are duplicated acreages
 3/ Calculated from columns 3 and 6; rounded to nearest unit

Basin: Bayou Meto

Project: Wabbaseka Bayou

Reach: W-2

State: Arkansas

SUMMARY - TABLE III B
ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil:	Land use and crop	Acres	Unit	Production	Total	Value of production: Per Unit	Total	Cost of production: Per Acre	Total	Net Return
Unit:	distribution			Per Acre		Dollars	Dollars	Dollars	Dollars	Dollars
All	Open land	4,206								
	Crops	3,786		3/		.25	134,232	94.52	148,024	16,653
	Cotton	1,566	:lbs.	343	536,930	63.00	30,445	40.24	1,529	1,099
	Cottonseed	(1,566)	:Ton	3086	483.24	1.45	2,628	99.96	47,081	5,906
	Corn	38	Bu.	48	1,813	3.75	52,987	26.01	21,172	16,656
	Rice	471	Cwt.	30	14,130	2.30	37,828	16.92	3,350	1,069
	Soybeans	814	Bu.	20	16,447	.90	4,419	7.47	411	577
	Oats (Grain)	198	Bu.	25	4,910	2.005	988	20.27	3,244	2,142
	Oats (Sup. Past.)	(55)	:lbs. Beef	90	4,930	1.53	5,386	25.45	6,057	2,626
	Grain Sorghum	160	Bu.	22	3,520	2.005	8,683			
	Perm. Pasture	238	:lbs. Beef	182	43,305					
	Idle	301								
	Other 1/	420								
	Woodland	604	Acres			5.08	3,068	2.52	1,522	1,546
	TOTAL	4,810 5/					280,664		232,390	48,274

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 311 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

SUMMARY - TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop		2/	Production			Value of production:	Cost of production			Net
Unit: distribution	Acres	Unit	Per Acre	Total	Per Unit	Total	Per Acre	Total	Return	
All : Open land	: 4,810	:	:	:	:	:	:	:	:	:
: Crops	: 4,329	:	:	:	:	:	:	:	:	:
: Cotton	: 2,328	: lbs. lint	: 483	: 1,125,235	: .25	: 281,309	: 128.24	: 298,543	: 46,566	:
: Cottonseed	: (2,328)	: Ton	: 4350	: 1,012.72	: 63.00	: 63,800	:	:	:	:
: Corn	: 43	: Bu.	: 56	: 2,388	: 1.45	: 3,462	: 46.58	:	:	:
: Rice	: 489	: Cwt.	: 33	: 16,201	: 3.75	: 60,754	: 106.97	: 2,003	: 1,459	:
: Soybeans	: 955	: Bu.	: 23	: 21,805	: 2.30	: 50,152	: 28.39	: 52,306	: 8,448	:
: Grain Sorghum	: 32	: Bu.	: 28	: 896	: 1.53	: 1,371	: 23.99	: 27,117	: 23,035	:
: Perm. Pasture	: 273	: lbs. Beef	: 257	: 70,280	: .2005	: 14,090	: 35.94	: 9,811	: 4,279	:
: Idle	: 209	:	:	:	:	:	:	:	:	:
: Other 1/	: 481	:	:	:	:	:	:	:	:	:
: Woodland	: -	: Acres	:	:	:	:	:	:	:	:
: TOTAL	: 4,810 5/	:	:	:	:	: 474,938	:	: 390,548	: 84,390	:

- 1/ Farmssteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone B reduced by 311 acres woodland not anticipated to be cleared.

Basin: Bayou Metro
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil	Unit	Acres	Gross	Cost	Net	Gross	Cost	Net
			Future Without Project (Production in Dollars)			Future With Project (Production in Dollars)		
								Difference in Net Production

ZONE A - (not subject to flooding)								
1	4,161	203,673	187,904	18,074 1/2	467,493	399,678	67,815	49,741 1/2
2	1,406	93,572	71,831	21,741	173,162	137,230	35,932	14,191
4	7,892	669,096	508,251	160,845	1,127,801	874,636	253,165	92,320
Subtotal	13,459 2/3	966,341	767,986	200,660	1,768,456	1,411,544	356,912	156,252

ZONE B - (subject to flooding)								
1	3,146	139,556	121,806	17,750	269,945	224,948	44,997	27,247
2	708	52,010	39,602	12,408	76,490	62,551	13,939	1,531
4	761	62,378	49,450	12,928	101,783	81,517	20,266	7,338
11	195	26,720	21,532	5,188	26,720	21,532	5,188	-
Subtotal	4,810 3/4	280,664	232,390	48,274	474,938	390,548	84,390	36,116
TOTAL	18,269	1,247,005	1,000,376	248,934	2,243,394	1,802,092	441,302	192,368

- 1/ Adjusted to eliminate negative net return
 2/ Total area Zone A reduced by 403 acres urban, 1,152 acres woodland not anticipated to be cleared, and 10,694 acres already drained or not requiring drainage.
 3/ Total area Zone B reduced by 311 acres woodland not anticipated to be cleared

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE VI
 LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion <u>1/</u>	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	Acres	Dollars	Dollars	Dollars
Per Acre				
W to GC	xx	60	10	xx
W to IC	xx	60	10	xx
W to P	xx	-	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	1,461	87,660	14,610	102,270
W to IC	22	1,320	220	1,540
W to P	96	5,760	xx	5,760
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	94,740	14,830	109,570
Annual amortized value <u>2/</u>	xx	xx	xx	6,002
Total annual cost of conversions	xx	xx	xx	6,002

1/ W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture

2/ Amortized over 50 years at 5 percent.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil Mapping Unit and Land Use	Area Acres	Total Cost Installation	Annual Equivalent Instl. Cost	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	2,921	50,543	6,545	5,832	12,377
	1 - Rice	562	4,851	628	187	815
	1 - Pasture	262	2,439	316	56	372
	2 - General crops	1,075	16,126	2,088	1,861	3,949
	2 - Rice	127	1,096	142	42	184
	2 - Pasture	63	586	76	14	90
	4 - General crops	6,463	85,951	11,131	9,917	21,048
	4 - Pasture	639	5,200	673	120	793
	Subtotal	12,112 ^{3/}	166,792	21,599	18,029	39,628
B	1 - General crops	1,237	21,403	2,772	2,470	5,242
	1 - Rice	233	2,011	260	77	337
	1 - Pasture	110	1,025	133	24	157
	2 - General crops	364	5,461	707	630	1,337
	2 - Rice	42	363	47	14	61
	2 - Pasture	22	206	27	5	32
	4 - General crops	461	6,131	794	707	1,501
	4 - Pasture	24	195	25	4	29
	Subtotal	2,493 ^{3/}	36,795	4,765	3,931	8,696
	Total	14,605 ^{3/}	203,587	26,364	21,960	48,324

129

^{1/} Includes engineering and contingency
^{2/} Amortized over 10 years at 5 percent
^{3/} Does not include 10 percent "other" land.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE VIII
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Shaping or spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic Yard	292,450	0.20	58,490
Right-of-way easements	Acres	268	25.00	6,700
Crossings	Each	36	300.00	10,800
Swinging water gaps	Each	23	40.00	920
Pipe drop structures	Each	46	150.00	6,900
Flap gates	Each	15	100.00	1,500
Vegetative plantings	Acres	69	8.00	552
Total construction cost	xx	xx	xx	85,862
Engineering cost	xx	xx	xx	8,586
Contingencies and legal	xx	xx	xx	8,586
Total installation cost				103,034
Annual equivalent - installation cost (amortized for 20 years at $3\frac{1}{2}$ percent)				7,249
Annual maintenance cost				4,293
Annual loss of production - right-of-way <u>2/</u>				1,442
Total annual cost of required group facilities				12,984

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production - right-of-way. 134 acres @ \$10.76 per acre.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-2
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Amount
		Dollars
1. Net return with project	441,302	xx
2. Net return without project	248,934	xx
3. Gross benefit to project	192,368	119,503 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	26,364	xx
b. Maintenance cost	21,960	xx
c. Total	48,324	30,020
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	7,249	xx
b. Maintenance cost <u>1/</u>	5,735	xx
c. Total	12,984	10,782
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	6,002	xx
b. Maintenance cost	-	xx
c. Total	6,002	3,729

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 20 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at 3½ percent to account for estimated 10 year lag to full installation, maintenance, and benefit accrual.

BASIN: BAYOU METO

PROJECT: WABBASEKA BAYOU

REACH: W-3

STATE: ARKANSAS

Basin: Bayou Meto
 Project: ~~W~~abbasoka Bayou
 Reach: ~~W~~-3
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil map- ping unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Game Preserve (Acres)	Total (Acres)
Zone A	1	123	29	-	-	-	152
	4	697	-	-	-	-	697
	11	1,045	132	-	-	-	1,227
Subtotal, all soil		1,865	211	-	-	-	2,076
Urban		-	-	73	-	-	73
Watered		-	-	-	-	-	-
Game Preserve		-	-	-	-	-	-
Total - Zone A		1,865	211	73	-	-	2,149
Zone B	1	10	10	-	-	-	20
Subtotal, all soil		10	10	-	-	-	20
Urban		-	-	-	-	-	-
Watered		-	-	-	-	-	-
Game Preserve		-	-	-	-	-	-
Total - Zone B		10	10	-	-	-	20
Zone C	1	9	16	-	-	-	25
Subtotal, all soil		9	16	-	-	-	25
Urban		-	-	-	-	-	-
Watered		-	-	-	-	-	-
Game Preserve		-	-	-	-	32	32
Total - Zone C		9	16	-	-	32	57
GRAND TOTAL-Reach							
W-3		1,884	237	73	-	32	2,226

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1):	(2)	:	(3)	:	(4)	:	(5)	:	(6)
Soil:	Land use and crop	:	<u>2/</u>	:		:	Production	:	
Unit:	distribution	:	Acres	:	Unit	:	Per Acre:	:	Total
:	:	:	:	:	:	:	:	:	:
All :	Open land	:	820	:	:	:	:	:	:
:	Crops	:	738	:	:	:	<u>3/</u>	:	:
:	Cotton	:	344	:	Lbs.Lint	:	366	:	125,940
:	Cottonseed	:	(344)	:	Ton	:	.3295	:	113.34
:	Corn	:	25	:	Bu.	:	40	:	1,000
:	Rice	:	119	:	Cwt.	:	30	:	3,570
:	Soybeans	:	163	:	Bu.	:	20	:	3,297
:	Oats (Grain)	:	43	:	Bu.	:	24	:	1,038
:	Grain Sorghum	:	4	:	Bu.	:	16	:	64
:	Idle	:	40	:	:	:	:	:	:
:	Other <u>1/</u>	:	82	:	:	:	:	:	:
:	Woodland	:	29	:	Acres	:	:	:	:
:	TOTAL	:	849 <u>4/</u>	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:

1/ Farmsteads, farm roads, waste and non-agricultural

2/ Parenthetical amounts are duplicated acreages

3/ Calculated from Columns 3 and 6; rounded to the nearest unit.

4/ Total area zone A reduced by 73 acres urban, and 1,227 acres not requiring drainage.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

SUMMARY - TABLE III A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil : Land use and crop	2/	Acres	Unit	Production	Value of production	Cost of production	Net			
Unit : distribution				Per acre	Total	Per unit	Total	Per acre	Total	Return
					Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
All : Open land		563								
: Crops		507		3/				4/		4,734 5/
: Cotton		250	Lbs.Lint	422	105,380	.25	26,345	110.34	27,586	4,765 6/
: Cottonseed		(250)	Ton	.3794	94.84	63.00	5,975	-	-	-
: Corn		21	Bu.	46	966	1.45	1,401	38.64	811	590
: Rice		57	Cwt.	30	1,710	3.75	6,412	99.96	5,698	714
: Soybeans		126	Bu.	27	3,458	2.30	7,953	31.81	4,008	3,945
: Oats (Grain)		25	Bu.	33	824	.90	741	20.80	520	221
: Grain Sorghum		4	Bu.	17	68	1.53	104	17.18	69	35
: Idle		24								
: Other	1/	56								
: Woodland		-	Acres							
: TOTAL		563 7/					48,931		38,692	10,239 5/
										10,270 6/

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages.
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
- 5/ Includes calculated negative net return
- 6/ Adjusted to eliminate negative net return.
- 7/ Total area zone A reduced by 73 acres urban, 29 acres woodland not anticipated to be cleared, and 1,484 acres already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY, COMPUTATION
 OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop	2/	Acres:	Unit	Production	Per acre:	Total	Value of production:	Cost of production:	Net	Return
Unit: distribution	:	:	:	Per acre:	Total	Per unit:	Total	Per acre:	Total	Dollars
All: Open land	:	563	:	:	:	:	:	:	:	:
Crops	:	507	:	3/	:	:	:	:	:	:
Cotton	:	282	:	Lbs. Lint	:	715	:	201,520:	:	:
Cottonseed	:	(282)	:	Ton	:	.6432	:	181.37:	:	:
Corn	:	22	:	Bu.	:	60	:	1,320:	:	63.00
Rice	:	31	:	Cwt.	:	35	:	1,085:	:	1.45
Soybeans	:	147	:	Bu.	:	28	:	4,179:	:	3.75
Idle	:	25	:	:	:	:	:	:	:	2.30
Other 1/	:	56	:	:	:	:	:	:	:	:
Woodland	:	-	:	:	:	:	:	:	:	:
TOTAL	:	563 5/	:	Acres	:	:	:	:	:	77,401
TOTAL	:	563 5/	:	:	:	:	:	:	:	60,263 17,138

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from Columns 3 and 6; rounded to nearest unit.
- 4/ Calculated from Columns 3 and 10; rounded to nearest cent.
- 5/ Total area zone A reduced by 73 acres urban, 29 acres woodland not anticipated to be cleared, and 1,484 acres already drained or not requiring drainage.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE II B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil :	Land use and crop :	3/ :	Production		
Unit :	distribution :	Acres :	Unit :	Per acre:	Total
1 1/ :	Open land :	10 :	:	:	:
:	Crops :	9 :	:	:	:
:	Cotton :	8 :	Lbs.Lint :	205 :	1,640
:	Cottonseed :	(8) :	Ton :	.1845 :	1.48
:	Idle :	1 :	:	:	:
:	Other 2/ :	1 :	:	:	:
:	Woodland :	10 :	Acres :	:	:
:	TOTAL :	20 :	:	:	:
:	:	:	:	:	:

- 1/ One soil only; no summary required.
 2/ Farmsteads, farm roads, waste and non-agricultural.
 3/ Parenthetical amounts are duplicated acreages.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE III B
 ZONES FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION,
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop	3/	Unit	Production	Value of production	Cost of production	Net				
Unit: distribution	Acres	Unit	Per acre	Total	Per acre	Total	Per acre	Total	Return	Dollars
1 1/2 Open land	10									
Crops	9									
Cotton	8	Lbs.Lint	220	1,760	.25	440	68.95	552	-12 4/5	
Cottonseed	(8)	Ton	.1980	1.58	63.00	100	-	-		
Idle	1									
Other 2/	1									
Woodland	-	Acres								
TOTAL	10 6/7					540		552	-12 4/5	
1 One soil only; no summary required										
2 Farmsteads, farm roads, waste and non-agricultural										
3 Parenthetical amounts are duplicated acreages.										
4 Includes calculated negative net return.										
5 Adjusted to eliminate negative net return.										
6 Total area zone B reduced by 10 acres woodland not anticipated to be cleared.										

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE IV B
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PRODUCE
 (Based on projected prices)

(1):	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop	3/:	Acres	Unit	Production	Per Acre	Total	Value of production: Per unit	Cost of production: Per Acre	Total	Net Return
Unit: distribution							Dollars	Dollars	Dollars	Dollars
1 1/2: Open land		10								
: Crops		9								
: Cotton		8	Lbs. lint	220	1,760	.25	440	68.95	552	-12 4/5
: Cottonseed		(8)	Ton	.1980	1.58	63.00	100			
: Idle		1								
: Other 2/		1								
: Woodland		-	Acres							
: TOTAL		10 6/					540		552	-12 4/5

- 1/ One soil only; no summary required.
- 2/ Farmsteads, farm roads, waste and non-agricultural
- 3/ Parenthetical amounts are duplicated acres
- 4/ Includes calculated negative net return.
- 5/ Adjusted to eliminate negative net return.
- 6/ Total area zone B reduced by 10 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE II C
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1) :	(2) :	(3) :	(4) :	(5) :	(6)
Soil :	Land use and crop :	<u>2/</u> :	Production		
Unit :	distribution :	Acres :	Unit :	Per acre :	Total
1 <u>1/</u> :	Open land :	9 :	:	:	:
:	Crops :	9 :	:	:	:
:	Idle :	9 :	:	:	:
:	Woodland :	16 :	Acres :	:	:
:	TOTAL :	25 <u>3/</u> :	:	:	:
:	:	:	:	:	:

1/ One soil only; no summary required

2/ Woodland to remain in woodland; open land to revert to woodland; no table III C is required.

3/ Total area zone C reduced by 32 acres in game refuge.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE V
 REACH SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Acres	Gross	Cost	Net	Gross	Cost	Net	Difference in Net Production
		Future without project			Future with project			
		(Production in Dollars)			(Production in Dollars)			
1	85	5,552	4,975	608.1	5,748	8,283	1,465	857 1/2
4	478	43,379	33,717	9,662.1	67,653	51,980	15,673	6,011
Subtotal	563	48,931	38,692	10,270	77,401	60,263	17,138	6,868
1	10	540	552	12	ZONES B & C - (subject to flooding)		540	552
Subtotal	10	540	552	12			540	552
TOTAL	573	49,471	39,244	10,270	77,941	60,815	17,138	6,868

- 1/ Adjusted to eliminate negative net return
- 2/ Total area zone A reduced by 73 acres urban, 1,484 acres not requiring drainage or already drained and 29 acres woodland not anticipated to be cleared.
- 3/ Total area zones B & C reduced by 10 acres woodland not anticipated to be cleared in zone B and by total area, 57 acres, in zone C.

Basin: Bayou Meto
 Project: Wabbaseka Bayou
 Reach: W-3
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation 1/ Dollars	Annual equivalent Instl. cost 2/ Dollars	Annual Maintenance Cost Dollars	Total Annual Cost Dollars
A	1-General crops	46	795	103	92	195
	1-Rice	31	268	35	10	45
	4-General crops	430	5,719	741	660	1,401
	Subtotal	507 3/	6,782	879	762	1,641
	TOTAL	507 3/	6,782	879	762	1,641

- 1/ Includes engineering and contingency
- 2/ Amortized at 5 percent over 10 years
- 3/ Does not include 10 percent "other" land

Basin:	<u>Bayou Meto</u>
Project:	<u>Wabbaseka Bayou</u>
Reach:	<u>W-3</u>
State:	<u>Arkansas</u>

TABLE IX
SUMMARY OF ANNUAL NET PRODUCTION RETURNS
AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted amount
	Dollars	Dollars
1. Net return with project	17,138	xx
2. Net return without project	10,270	xx
3. Gross benefit to project	6,868	5,444 <u>1/</u>
4. Farm drainage cost	xx	xx <u>1/</u>
a. Installation cost	879	xx
b. Maintenance cost	762	xx
c. Total	1,641	1,301
5. Group drainage cost <u>2/</u>	xx	xx
a. Installation cost	-	xx
b. Maintenance cost	-	xx
c. Total	-	-
6. Conversion cost <u>2/</u>	xx	xx <u>1/</u>
a. Installation cost	-	xx
b. Maintenance cost	-	xx
c. Total	-	-
<u>1/</u> Discounted at 5 percent to account for estimated 10 year lag to full installation, maintenance, and benefit accrual.		
<u>2/</u> Because of the extremely small size of the reach, no group drainage is required; no conversions are anticipated. Tables VI and VIII are omitted.		

BASIN : BAYOU METO

PROJECT: BRADLEY SLOUGH

STATE : ARKANSAS

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE I
 PRESENT LAND USE

Zone	Soil Mapping Unit	Open (Acres)	Wooded (Acres)	Urban (Acres)	Watered (Acres)	Game Preserve (Acres)	Total (Acres)
Zone A	1	9,138	5,839	-	-	-	14,977
	2	1,781	110	-	-	-	1,891
	4	4,942	119	-	-	-	5,061
	11	8,577	617	-	-	-	9,194
Subtotal - all soils		24,438	6,685	-	-	-	31,123
Urban		-	-	-	-	-	-
Watered		-	-	-	119	-	119
Game Preserve		-	-	-	-	-	-
Total - Zone A		24,438	6,685	-	119	-	31,242
Zone B	1	3,102	9,301	-	-	-	12,403
	4	254	-	-	-	-	254
Subtotal -all soils		3,356	9,301	-	-	-	12,657
Urban		-	-	-	-	-	-
Watered		-	-	-	9	-	9
Game Preserve		-	-	-	-	-	-
Total - Zone B		3,356	9,301	-	9	-	12,666
Zone C	1	132	2,320	-	-	-	2,452
Subtotal -all soils		132	2,320	-	-	-	2,452
Urban		-	-	-	-	-	-
Watered		-	-	-	-	-	-
Game Preserve		-	-	-	-	2,398	2,398
Total - Zone C		132	2,320	-	-	2,398	4,850
GRAND TOTAL- Project		27,926	18,306	-	128	2,398	48,758

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

SUMMARY - TABLE II A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	2/	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
All	Open land	13,661			
	Crops	12,295		3/	
	Cotton	5,377	Lbs.Lint	297	1,598,420
	Cottonseed	(5,377)	Ton	.2675	1,438.57
	Corn	332	Bu.	40	13,280
	Rice	1,746	Cwt.	30	52,380
	Soybeans	2,804	Bu.	16	45,387
	Oats (Grain)	479	Bu.	19	8,951
	Oats (Sup.Past.)	(71)	Lbs.Beef	70	4,970
	Grain Sorghum	470	Bu.	16	7,520
	Perm. Pasture	472	Lbs.Beef	176	82,965
	Idle	615			
	Other 1/	1,366			
	Woodland	6,068	Acres		
	TOTAL	19,729 4/			

1/ Farmsteads, farm roads, waste and non-agricultural

2/ Parenthetical amounts are duplicated acreages

3/ Calculated from columns 3 and 6; rounded to nearest unit

4/ Total area zone A reduced by 119 acres water, and 11,394 acres already drained or not requiring drainage.

Basin: Bayou Meto
Project: Bradley Slough
State: Arkansas

SUMMARY - TABLE III A
ZONE FOR DRAINAGE CALCULATIONS ONLY
COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
(Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil Unit	Land use and crop distribution	Acres	Unit	Production Per Acre	Total	Value of production: Per Unit	Dollars Total	Cost of production: Per Acre	Dollars Total	Net Return
ALL	Open land	9,911								
	Crops	8,920								
	Cotton	3,929	Lbs. Lint	3/36	1,319,080	.25	329,770	92.51	363,470	41,093 5/43,616 5/
	Cottonseed	(3,929)	Ton	.3022	1,187.18	63.00	74,793	38.64	9,351	6,790
	Corn	242	Bu.	46	11,132	1.45	16,141	99.96	126,949	15,925
	Rice	1,270	Cwt.	30	38,100	3.75	142,874	25.28	51,437	39,125
	Soybeans	2,035	Bu.	19	39,375	2.30	90,562	14.51	4,572	950
	Oats (Grain)	315	Bu.	19	6,136	.90	5,522	5.37	381	615
	Oats (Sup. Past.)	(71)	Lbs. Beef	70	4,970	.2005	996	17.18	5,876	3,019
	Grain Sorghum	342	Bu.	17	5,814	1.53	8,895	32.08	11,002	4,624
	Perm. Pasture	343	Lbs. Beef	227	77,940	.2005	15,626			
	Idle	444								
	Other	991								
	Woodland	2,434	Acres			5.83	14,191	4.02	9,785	4,406
	TOTAL	12,345 7/					699,370		582,823	116,547 5/119,070 5/

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Includes calculated negative net return
- 6/ Adjusted to eliminate negative net return
- 7/ Total area zone A reduced by 119 acres water, 15,144 acres already drained, not requiring drainage, or not anticipated to be drained, and 3,634 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

SUMMARY - TABLE IV A
 ZONE FOR DRAINAGE CALCULATIONS ONLY
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1) Soil Unit	(2) Land use and crop distribution	(3) Acres	(4) Unit	(5) Production Per Acre	(6) Total	(7) Value of production: Per Unit	(8) Total	(9) Cost of production: Per Acre	(10) Total	(11) Net Return
ALL	Open land	12,345								
	Crops	11,111								
	Cotton	6,367	Lbs. lint	572 3/4	3,640,995	.25	910,248	148.37	944,667	172,026
	Cottonseed	(6,367)	Ton	5147	3,276.89	63.00	206,445			
	Corn	153	Bu.	69	10,557	1.45	15,308	62.47	9,558	5,750
	Rice	1,257	Cwt.	35	43,995	3.75	164,981	111.17	139,741	25,240
	Soybeans	2,431	Bu.	24	59,479	2.30	136,802	29.41	71,495	65,307
	Perm. Pasture	347	Lbs. Beef	386	133,915	.2005	26,850	51.67	17,930	8,920
	Idle	556								
	Other 1/	1,234								
	Woodland	-	Acres							
	TOTAL	12,345 5/					1,460,634		1,183,391	277,243

- 1/ Farmssteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ Calculated from columns 3 and 6; rounded to nearest unit
- 4/ Calculated from columns 3 and 10; rounded to nearest cent
- 5/ Total area zone A reduced by 119 acres water, 15,144 acres already drained, not requiring drainage or not anticipated to be drained, and 3,634 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE II B 3/
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION: EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop	<u>2/</u>	Production		
Unit	distribution	Acres	Unit	Per Acre	Total
1	Open land	3,356			
	Crops	3,020		<u>4/</u>	
	Cotton	1,782	Lbs. Lint	220	392,040
	Cottonseed	(1,782)	Ton	.1980	352.84
	Corn	121	Bu.	13	1,573
	Soybeans	755	Bu.	15	11,325
	Perm. Pasture	121	Lbs. Beef	150	18,150
	Idle	241			
	Other <u>1/</u>	336			
	Woodland	8,716	Acres		
	TOTAL	12,072 <u>5/</u>			

- 1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ One soil only - no summary required
4/ 5.66 cropland drained
5/ Total area Zone B reduced by 9 acres water and 585 acres
 dedicated to woodland.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE III B 4
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop	Acres	Unit	Production	Per Acre	Total	Value of production: Per Unit	Cost of production: Per Unit	Net Return		
Unit: distribution	Acres	Unit	Production	Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
1	Open land					Dollars	Dollars	Dollars	Dollars	Dollars
	Crops	3,792								
	Cotton	3,413	Lbs.	3/	493,430	.25	123,357	73.37	147,767	3,568
	Cottonseed	2,014	Ton	.2205	444.09	63.00	27,978			
	Corn	137	Bu.	15	2,055	1.45	2,980	17.82	2,441	539
	Soybeans	853	Bu.	16	13,648	2.30	31,390	22.73	19,389	12,001
	Perm. Pasture	137	Lbs. Beef	165	22,605	.2005	4,532	23.09	3,163	1,369
	Idle	272								
	Other <u>1/</u>	379								
	Woodland	4,968	Acres			5.83	28,963	4.02	19,971	8,992
	TOTAL	8,760 <u>5/</u>					219,200		192,731	26,469

- 1/ Farmsteads, farm roads, waste and non-agricultural
- 2/ Parenthetical amounts are duplicated acreages
- 3/ 10.02 percent cropland drained
- 4/ One soil only; no summary required
- 5/ Total area zone B reduced by 9 acres water, 585 acres dedicated to woodland, and 3,312 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE IV B 5/
 ZONE FOR DRAINAGE AND FLOOD CONTROL CALCULATIONS
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITH PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil	Land use and crop	Acres	Unit	Production	Value of production	Cost of production	Net			
Unit	distribution			Per Acre	Total	Per Unit	Total	Per Acre	Total	Return
1	Open land	8,760								
	Crops	7,884								
	Cotton	4,888	Lbs. Lint	445 ^{3/4}	2,175,160	.25	543,790	119.53	584,263	82,858
	Cottonseed	(4,888)	Ton	4005	1,957.64	63.00	123,331			
	Rice	315	Cwt.	34	10,710	3.75	40,162	108.92	34,310	5,852
	Soybeans	1,972	Bu.	21	41,412	2.30	95,248	26.98	53,205	42,043
	Perm. Pasture	315	Lbs. Beef	250	76,750	.2005	15,789	35.02	11,031	4,758
	Idle	394								
	Other <u>1/</u>	876								
	Woodland		Acres							
	TOTAL	8,760 <u>6/</u>					818,320		682,809	135,511

1/ Farmsteads, farm roads, waste and non-agricultural
2/ Parenthetical amounts are duplicated acreages
3/ 71.30 percent cropland drained
4/ 30 percent cotton on drained land irrigated
5/ One soil only - no summary required
6/ Total area zone B reduced by 9 acres water, 585 acres dedicated to woodland, and
 3,312 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE II C
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION
EXISTING CONDITIONS

(1)	(2)	(3)	(4)	(5)	(6)
Soil	Land use and crop			Production	
Unit	distribution	Acres	Unit	Per Acre	Total
1 <u>1/</u>	Open land	132			
	Crops	119			
	Corn	24	Bu.	12	288
	Soybeans	24	Bu.	14	336
	Grain Sorghum	23	Bu.	16	368
	Idle	48			
	Other <u>2/</u>	13			
	Woodland	118	Acres		
	TOTAL	250 <u>3/</u>			

1/ One soil only; no summary required

2/ Farm roads, waste and non-agricultural

3/ Total area zone C reduced by 2,398 acres in game refuge, 1,140 acres dedicated to woodland, and 1,062 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE III C 1/
 ZONE OF NO PROJECT BENEFIT
 COMPUTATION OF AGRICULTURAL PRODUCTION, VALUE OF PRODUCTION
 PRODUCTION COSTS, AND NET RETURNS: FUTURE CONDITIONS WITHOUT PROJECT
 (Based on projected prices)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Soil: Land use and crop			Production			Value of production:	Cost of production:			Net
Unit: distribution	Acres	Unit	Per Acre:	Total	Per Unit:	Total	Per Acre:	Total	Return	
1 <u>2/</u> : Open land	250				Dollars:	Dollars:	Dollars:	Dollars:		
: Crops	225									
: Corn	45	Bu.	13	585	1.45	848	16.96	763	85	
: Soybeans	45	Bu.	15	675	2.30	1,552	21.82	982	570	
: Grain Sorghum	45	Bu.	17	765	1.53	1,170	17.18	773	397	
: Idle	90									
: Other <u>3/</u>	25									
: Woodland	-	Acres								
: TOTAL	250 <u>4/</u>					3,570		2,518	1,052	

- 1/ Data same for "with project" and "without project"; no IV C required.
2/ One soil only; no summary required
3/ Farm roads, waste and non-agricultural
4/ Total area zone C reduced by 2,398 acres in game refuge, 1,140 acres
 dedicated to woodland, and 1,062 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE V
 PROJECT AREA SUMMARY BY SOIL MAPPING UNITS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Soil Unit	Acres	Gross	Cost	Net	Gross	Cost	Net	Difference in Net Production
		Future Without Project (Production in Dollars)			Future With Project (Production in Dollars)			
1	7,793	298,905	264,070	37,358 <u>1/</u>	816,517	672,986	143,531	106,173 <u>1/</u>
2	1,160	90,291	71,469	18,822	139,207	112,840	26,367	7,545
4	3,392	310,174	247,284	62,890	504,910	397,565	107,345	44,455
Subtotal	12,345 <u>2/</u>	699,370	582,823	119,070	1,460,634	1,183,391	277,243	158,173
ZONES B & C - (subject to flooding)								
1	9,010	222,770	195,249	27,521	821,890	685,327	136,563	109,042
Subtotal	9,010 <u>3/</u>	222,770	195,249	27,521	821,890	685,327	136,563	109,042
TOTAL	21,355	922,140	778,072	146,591	2,282,524	1,868,718	413,806	267,215

1/ Adjusted to eliminate negative net return
2/ Total area Zone A reduced by 119 acres water, 15,144 acres already drained, not requiring drainage or not anticipated to be drained, and 3,634 acres woodland not anticipated to be cleared.
3/ Total area Zones B & C reduced by 9 acres water, 1,725 acres dedicated to woodland, 2,398 acres in game refuge, and 4,374 acres woodland not anticipated to be cleared.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE VI
 LAND CONVERSIONS WITH PROJECT

(1)	(2)	(3)	(4)	(5)
Type of Conversion <u>1/</u>	Total Amount	Cost of Clearing	Cost of Smoothing	Total Cost
	<u>Acres</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Per Acre				
W to GC	xx	60	10	xx
W to IC	xx	60	10	xx
W to P	xx	60	xx	xx
P to GC	xx	xx	-	xx
P to IC	xx	xx	-	xx
GC to IC	xx	xx	xx	xx
GC to P	xx	xx	xx	xx
Project				
W to GC	6,829	409,740	68,290	478,030
W to IC	391	23,460	3,910	27,370
W to P	182	10,920	xx	10,920
P to GC	-	xx	-	-
P to IC	-	xx	-	-
GC to IC	-	xx	xx	-
GC to P	-	xx	xx	-
Total project	xx	444,120	72,200	516,320
Annual amortized value <u>2/</u>	xx	xx	xx	28,284
Total annual cost of conversions	xx	xx	xx	28,284

1/ W-woodland; GC-general dry-farmed crops; IC-irrigated crops; (rice); P-pasture.

2/ Amortized over 50 years at 5 percent.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE VII
 ANALYSIS OF FARM DRAINAGE SYSTEM COSTS

Zone	Soil mapping unit and land use	Area Acres	Total Cost Installation <u>1/</u>	Annual Equivalent Instl. Cost <u>2/</u>	Annual Maintenance Cost	Total Annual Cost
			Dollars	Dollars	Dollars	Dollars
A	1 - General crops	5,962	103,160	13,359	11,903	25,262
	1 - Rice	1,052	9,080	1,176	349	1,525
	2 - General crops	950	14,252	1,846	1,644	3,490
	2 - Rice	52	448	58	17	75
	2 - Pasture	42	391	51	9	60
	4 - General crops	2,595	34,511	4,469	3,982	8,451
	4 - Rice	153	1,321	171	51	222
	4 - Pasture	305	2,482	321	57	378
	Subtotal	11,111 <u>3/</u>	165,645	21,451	18,012	39,463
	1 - General crops	4,844	83,816	10,854	9,671	20,525
B	1 - Rice	225	1,942	251	75	326
	1 - Pasture	210	1,955	253	45	298
	Subtotal	5,279 <u>3/</u>	87,713	11,358	9,791	21,149
	TOTAL	16,390 <u>3/</u>	253,358	32,809	27,803	60,612

1/ Includes engineering and contingency
2/ Amortized over 10 years at 5 percent
3/ Does not include 10 percent "other" land.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE VIII
 ANALYSIS OF GROUP DRAINAGE NEEDS AND COSTS

Item	Unit	Amount	Unit Cost	Total Cost
			Dollars	Dollars
Excavation <u>1/</u>				
Shaping or spreading spoil <u>1/</u>				
Clearing right-of-way <u>1/</u>	Cubic Yard	999,100	0.18	179,838
Right-of-way easements	Acres	198	25.00	4,950
Crossings	Each	46	400.00	18,400
Swinging water gaps	Each	44	50.00	2,200
Pipe drop structures	Each	59	150.00	8,850
Flap gates	Each	20	100.00	2,000
Vegetative plantings	Acres	132	8.00	1,056
Total construction cost	xx	xx	xx	217,294
Engineering cost	xx	xx	xx	21,729
Contingencies and legal	xx	xx	xx	21,729
Total installation cost				260,752
Annual equivalent installation cost (amortized for 20 years at 3½ percent)				18,347
Annual maintenance cost				10,865
Annual loss of production - right-of-way <u>2/</u>				1,221
Total annual cost of required group facilities				30,433

1/ These items included in excavation costs under normal contract procedures.

2/ Annual loss of production - right-of-way. 99 acres @ \$12.33 per acre.

Basin: Bayou Meto
 Project: Bradley Slough
 State: Arkansas

TABLE IX
 SUMMARY OF ANNUAL NET PRODUCTION RETURNS
 AND ASSOCIATED COSTS

(1)	(2)	(3)
Item	Total	Discounted
	Dollars	Dollars
1. Net return with project	413,806	xx
2. Net return without project	146,591	xx
3. Gross benefit to project	267,215	147,759 <u>2/</u>
4. Farm drainage cost	xx	xx <u>2/</u>
a. Installation cost	32,809	xx
b. Maintenance cost	27,803	xx
c. Total	60,612	33,516
5. Group drainage cost	xx	xx <u>3/</u>
a. Installation cost	18,347	xx
b. Maintenance cost <u>1/</u>	12,086	xx
c. Total	30,433	22,822
6. Conversion cost	xx	xx <u>2/</u>
a. Installation cost	28,284	xx
b. Maintenance cost	-	xx
c. Total	28,284	15,640

1/ Includes loss of production, right-of-way

2/ Discounted at 5 percent to account for estimated 25 year lag to full installation, maintenance, and benefit accrual.

3/ Discounted at $3\frac{1}{2}$ percent to account for estimated 15 year lag to full installation, maintenance, and benefit accrual.

